

**Rico Surface Water Sampling  
Supplemental Surface Water Quality Monitoring  
Rico, Colorado  
Data Summary Report**

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***April 2012***

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**Rico, Colorado**  
**Surface Water Sampling Report**  
**April 2012 Sampling Event**

## **1.0 Introduction**

In accordance with the Rico Sampling and Analysis Plan for Supplemental Surface Water Quality Monitoring at Rico, CO prepared by AECOM, dated November 2010, the surface water sampling event was completed on April 18<sup>th</sup> – 19<sup>th</sup>, 2012. Sampling was completed by Anderson Engineering Co. Inc., by technicians who are familiar with the Rico sites and the BP Control of Work Management System. Surface water samples were collected from prescribed locations within the St. Louis settling pond system and at the system discharge (DR-6) to the Dolores River (collectively referred to as the St. Louis pond system), and previously sampled locations along the Dolores River above, at and below the St. Louis pond system. Figure 1 and Figure 1a (see Appendix A) illustrate the location of the various surface water sampling stations along the Dolores River and in the St. Louis pond system. Figure 2 in Appendix A illustrates the locations of the twenty monitoring wells sampled monthly. Sample results have been summarized and laboratory analytical results are attached with quality control documentation.

## **2.0 Field Sampling**

### **2.1 Sampling Frequency**

The sampling period represented by this sampling event is for the month of April of 2012. Sampling will be performed on a monthly basis until at least December of 2012.

### **2.2 Water Quality and Flow Measurement Sampling Locations**

Surface water samples were collected from the locations described on Table 1 and shown on Figure 1 and Figure 1a in Appendix A. In the fall of 2011, twelve (12) new monitoring wells were drilled in the vicinity of the recently constructed interim drying facility. Beginning November 2011, those wells were sampled and will continue to be sampled monthly along with the other sampling locations mentioned. Additionally, eight (8) historic groundwater wells are sampled every month. Figure 2 in Appendix A illustrates the locations of all groundwater wells sampled monthly, and they are described in Table 1.

The Dolores River was sampled above the St. Louis pond system, and below the adit outfalls downstream of the reclaimed Silver Swan Mine area. The river was also sampled at the USGS gaging station downstream of the Silver Swan site.

**TABLE 1 - Sample Location Summary**

SITE ID	SITE DESCRIPTION
DR-4-SW	Dolores River below Silver Swan
DR-1	Dolores River above St. Louis settling pond system
DR-2	Dolores River immediately above the St. Louis settling pond system outfall

DR-3	St. Louis tunnel discharge at adit
DR-4	Discharge of Pond 15
DR-5	Discharge of Pond 8
DR-6	St. Louis settling pond system outfall to the Dolores River
DR-7	Dolores River below St. Louis settling pond system outfall
DR-G	Dolores River at USGS gaging station #09165000
GW-1	Located on the north end of the site, approximately a quarter mile north of the northern edge of Pond 18.
GW-3	Located approximately 200 feet north of the northern edge of pond 18, and approximately 60 feet west of the main access road.
GW-4	Located on the western flood dike of Pond 18, approximately midway along the dike.
GW-5	Located on the northern edge of the former Pond 17 area, or on the northern dike of the newly constructed drying cell 1.
GW-6	Located on the middle of the former Pond 17 area, or on the western edge of the south dike of the newly constructed drying cell 1.
GW-7	Located on the eastern edge of the access road directly across from the former Pond 17, or directly across from the newly constructed drying cell 2.
EB-1	Located on the northern edge of the former Pond 17 area, or on the northern dike of the newly constructed drying cell 1. It is within ten feet of GW-5.
EB-2	Located on the southern portion of the former Pond 16 area, or on the western edge of the south dike of the newly constructed drying cell 3.
MW-1 Shallow MW-1 Deep	Both wells are located about 4 feet apart on the western embankment of Pond 13 at the division between Pond 11 and Pond 12.
MW-2 Shallow MW-2 Deep	Both wells are located about 4 feet apart on the western flood embankment of Pond 12, about mid-way along the pond.
MW-3 Shallow MW-3 Deep	Both wells are located about 4 feet apart on the western flood embankment of Pond 15, on the southern half of the embankment.
MW-4 Shallow MW-4 Deep	Both wells are located about 4 feet apart on the southern embankment of Pond 13, approximately 60 west of the main east access road.
MW-5 Shallow MW-5 Deep	Both wells are located about 4 feet apart on the western dike of drying cell 3 (refer to Figure 2).
MW-6 Shallow MW-6 Deep	Both wells are located about 4 feet apart on northern embankment of Pond 13, approximately 75 feet west of the main east access road

### 2.3 Sampling Station Descriptions

The sampling requirements and stations are described in detail below, as well as the conditions at each station for this sampling period:

**DR-1.** Dolores River above St. Louis settling ponds system. The sampling/flow measurement location is on the Dolores River approximately 50 feet upstream of the Rico Ranger Station. Flow measurement was collected by flowmeter.

**DR-2.** Dolores River immediately above the St. Louis settling pond system outfall. Sampling/flow measurement location is on the Dolores just above the 002 discharge outfall, and upstream of the hot tub discharge. The site is located directly adjacent to the thermal discharge which supplies the hot tub. Flow measurement was collected by flowmeter.

**DR-3.** St. Louis tunnel discharge at adit entrance. Sampling location is at the inlet of the flume, just before the throat. Flow measurement by an installed 9" flume and water level measurement devices at the sampling location.

**DR-4.** Discharge of Pond 15. Flow measurement was collected by flowmeter.

**DR-5.** Discharge of Pond 8. Due to the shallow water and multiple paths, accurate flow measurements could not be determined for this sampling location and period. Leakage was estimated by water balance. Flows estimated by water balance and water level reading.

**DR-6.** St. Louis settling ponds system outfall to the Dolores River (Outfall 002). Flow measurement by installed 9" flume.

**DR-7.** Dolores River below St. Louis settling ponds system outfall. Sampling/flow measurement location is located just off the entrance road to the St. Louis ponds site where the Dolores River is adjacent to the entrance road. The site is located approximately 75 feet downstream from a large bend in the river that first brings the Dolores adjacent to the entrance road. Flow measurements were collected by flowmeter.

**DR-4-SW.** Dolores River below Silver Swan. Sampling/flow measurement location is on the Dolores River below the Silver Swan site just downstream of a bend in the river and below a cemetery on the east bank. Flow measurements were collected by flowmeter.

**DR-G.** Located at the USGS gauging station #09165000. Flow measurements were collected by flowmeter.

**Monitoring Wells.** All monitoring wells were sampled by use of a bailer, and field measurements were taken at the time of sampling. Depth measurements were also taken at this time. For the April 2012 sampling period, MW-2 Shallow had less than 1" of water and could not be sampled, and MW-3 Shallow was dry. GW-6 was not sampled due to an old bailer that is lodged in the well at approximately 25 feet. Efforts have been made to remove it, and will continue to be made until the issue is resolved.

### 3.0 Sampling and Analysis Parameters and Methods

All samples were collected as grab samples. Samples were collected from well-mixed locations, which are representative of conditions within the flow stream. Lab-certified plastic bottles were used to collect sample water for analyses. Clean hands, dirty hands procedures were followed throughout the sampling.

For quality control purposes, one duplicate sample and one field blank were included with the water samples being submitted to the laboratory for analysis.

Lab-certified plastic bottles were used to collect all water samples. Sample water was first collected in clean plastic jugs, and within 10 minutes, placed in the sampling bottles. A 500 mL HDPE bottle was used to collect a sample for alkalinity, TDS, TSS, and sulfate analyses. A 250 mL HDPE bottle was used to collect a sample for salinity analysis. Sample water for dissolved metals analysis and potentially dissolved metals analysis was filtered through a 0.45 $\mu$ m filter into a 250 mL sample bottle containing nitric acid preservative. Sample water for total recoverable metals analysis and water hardness was collected without filtration in a 250 mL HDPE sample bottle containing nitric acid preservative. Sample water for cyanide analysis was collected without filtration into a 250 mL HDPE sample bottle containing sodium hydroxide preservative.

Field parameters were measured at the time of sample collection. Field measurement data for temperature and electrical conductivity were recorded using an EXTECH Instruments DO610 ExStik II DO/pH/Conductivity kit, and results were logged in the field log book. Weather parameters including temperature and precipitation were obtained and documented in the Journey Assessment.

All sample bottles were labeled to identify sample number, date and time of collection, type of analysis, and appropriate preservative. In addition, sample analysis/chain of custody forms were completed and processed at the time of sample collection. Original chain of custody forms are signed, dated, and placed in the sample container prior to sealing the container for shipment.

Water samples were kept in cooled containers and sent to the analytical laboratory. Samples were submitted to Pace Analytical Laboratories in Lenexa, Kansas for analysis by analytical procedures listed on Table 2. Analysis was performed according to methods specified in 40 CFR, Part 136 or other methods approved by the EPA. Laboratory methods and reporting limits for all parameters are presented in Table 2. Laboratory results and supporting documentation including quality assurance results are contained in the Appendix C and Appendix D of this report. Results are summarized in Table 4 in Appendix B of this report.

**TABLE 2 - Analytical Procedures Summary**

Parameter	Detection Limit (MDL)	Method
<b>Field Parameters</b>		
pH (s.u.)	+/- 0.01 pH	EPA 150.2
Temperature (°C)	+/- 1°C	Standard Method 2550
Conductivity ( $\mu\text{mhos}/\text{cm}$ )	+/- 2% Full Scale	EPA 120.1
Dissolved Oxygen	+/- 2% Full Scale	SM 4500-OG
<b>Non-Metals</b>		
Alkalinity (mg/L as $\text{CaCO}_3$ )	RL – 20 mg/L	EPA 310.1
Hardness (mg/L as $\text{CaCO}_3$ )	RL – 0.5 mg/L	SM 2340 B
Total Dissolved Solids (mg/L as TDS)	RL – 5.0 mg/L	SM 2540C
Total Suspended Solids (mg/L as TSS)	RL – 5.0 mg/L	SM 2540D
Cyanide ( $\mu\text{g}/\text{L}$ as CN)	RL – 0.005 mg/L	EPA 335.4
Salinity	RL – 6 mg/L	SM 2510B (calculated)
Sulfate (mg/L as $\text{SO}_4$ )	RL – 1 mg/L	EPA 300.0
<b>Total, Dissolved, and Potentially Dissolved Metals</b>		
Aluminum ( $\mu\text{g}/\text{L}$ as Al)	2 $\mu\text{g}/\text{L}$	EPA 200.8
Antimony ( $\mu\text{g}/\text{L}$ as Sb)	0.07 $\mu\text{g}/\text{L}$	EPA 200.8
Arsenic ( $\mu\text{g}/\text{L}$ as As)	0.09 $\mu\text{g}/\text{L}$	EPA 200.8
Barium ( $\mu\text{g}/\text{L}$ as Ba)	0.08 $\mu\text{g}/\text{L}$	EPA 200.8
Beryllium ( $\mu\text{g}/\text{L}$ as Be)	0.02 $\mu\text{g}/\text{L}$	EPA 200.8
Cadmium ( $\mu\text{g}/\text{L}$ as Cd)	0.03 $\mu\text{g}/\text{L}$	EPA 200.8
Calcium ( $\mu\text{g}/\text{L}$ as Ca)	10 $\mu\text{g}/\text{L}$	EPA 200.8
Chromium (ug/l as Cr)	0.25 ug/L	EPA 200.8
Copper ( $\mu\text{g}/\text{L}$ as Cu)	0.07 $\mu\text{g}/\text{L}$	EPA 200.8
Iron ( $\mu\text{g}/\text{L}$ as Fe)	4.67 $\mu\text{g}/\text{L}$	EPA 200.8
Lead ( $\mu\text{g}/\text{L}$ as Pb)	0.05 $\mu\text{g}/\text{L}$	EPA 200.8
Magnesium ( $\mu\text{g}/\text{L}$ as Mg)	2.5 $\mu\text{g}/\text{L}$	EPA 200.8
Manganese ( $\mu\text{g}/\text{L}$ as Mn)	0.17 $\mu\text{g}/\text{L}$	EPA 200.8
Mercury ( $\mu\text{g}/\text{L}$ as Hg)	0.049 $\mu\text{g}/\text{L}$	EPA 245.1
Nickel ( $\mu\text{g}/\text{L}$ as Ni)	0.07 $\mu\text{g}/\text{L}$	EPA 200.8
Potassium ( $\mu\text{g}/\text{L}$ as K)	10 $\mu\text{g}/\text{L}$	EPA 200.8
Selenium (ug/l as Se)	0.22 ug/L	EPA 200.8
Silver (ug/L as Ag)	0.25 ug/L	EPA 200.8
Sodium ( $\mu\text{g}/\text{L}$ as Na)	25 $\mu\text{g}/\text{L}$	EPA 200.8
Thallium ( $\mu\text{g}/\text{L}$ as Tl)	0.05 ug/L	EPA 200.8
Vanadium ( $\mu\text{g}/\text{L}$ as V)	0.05 ug/L	EPA 200.8
Zinc ( $\mu\text{g}/\text{L}$ as Zn)	2.5 $\mu\text{g}/\text{L}$	EPA 200.8

## 4.0 Flow Measurement Methods

Flows were measured at the river sampling locations where accessible. Flow Measurements were not collected at areas where ice and snow buildup prohibited safe access. The flow measurements obtained this sampling period are described in Section 2.3. Flowrates were measured for sampling locations DR-1, DR-2, DR-3, DR-4, DR-5, DR-6, DR-7, DR-4-SW, and DR-G. Refer to Figures 3 through 8 in Appendix E for these cross sections. The flowrates are presented on Table 3 in Appendix B.

Flow velocity measurements collected during this sampling event were taken by use of a Global Water Flow Probe FP211 portable flow meter at stations DR-2, DR-7, DR-4-SW, and DR-G using the six-tenths-depth method. This method uses the velocity at six-tenths of the depth as the mean velocity. This method is generally reliable between depths from 0.3 feet to 2.5 feet. Stream sections were selected with the desired characteristics of parallel flows, smooth streambed with minimal obstructions, a straight channel, and a flat streambed. The stream section, perpendicular to the flow was measured in feet. The width of the section was determined and divided into several sub-sections. Flow measurements of velocity (by the six-tenths-depth method) and water depth were measured at each vertical section using the Global Water Flow Probe FP211. The flow meter was set to the 3 second fixed period average mode. A minimum of three velocity readings were recorded at each vertical section. Flows were calculated for each stream section using the water depth, horizontal distance, and averaged velocity data.

Due to high flows at DR-1, the flotation method was used to estimate flows at this river cross sections. This method involved measuring off a 10 foot section of ground along the bank parallel to the flow of the river. An object was released in the river at the start of the 10 foot measured interval, as close to the center of the flow stream as possible. A stopwatch was used to record the time required for the object to float on the surface of the river for the duration of the 10 foot interval. Three trials were conducted and recorded in the field log book. An average was taken of the three trials and divided by 10 feet in order to obtain the average surface velocity in the center of the flow stream. This velocity was then multiplied by a factor of 0.8 (see Appendix K for documentation on this factor) in order to obtain an average vertical velocity for the stream. The total cross sectional was calculated based on water level surveys, and this area was multiplied by the average velocity to obtain the flowrate estimate.

The St. Louis tunnel flow (DR-3) and St. Louis pond discharge (DR-6) currently have Parshall flumes installed. Flow measurements can be determined at these flumes when the depth of flow is known at a particular point. In order to continuously monitor and measure the depth of flow, depth measurement devices were installed on May 11<sup>th</sup>, 2011 and May 12<sup>th</sup>, 2011 at both the north and south flumes. An STI Ultrasonic IRU-5180 automated water level detector was installed at the north Parshall flume. In order to obtain further flow data, an OTT PLS submersible pressure transducer was installed at the north flume in December 2011. In January 2012, it was decided that the OTT PLS would be used exclusively at the north flume to report flow data, and that the ultrasonic

meter would remain only as a backup flow measurement system. This was due in large part to the stability and uniformity observed in the data from the OTT PLS, as opposed to the ultrasonic meter, which exhibited greater instability and variability in the readings than the OTT PLS. The south flume has a submersible pressure transducer called the OTT Orpheus Mini. It records deviations from a pre-programmed depth of air space from the top edge of the flume down to the water level. Knowing then the total depth of the flume, the depth of flow can be determined. The post processed data for the OTT PLS and the OTT Orpheus Mini for the month of April, 2012 is given in Appendix I and Appendix J, respectively.

## 5.0 Analytical Results

The results of the laboratory analysis are summarized on Table 4 in Appendix B. The data is organized by sample location. The reports for the laboratory results are contained in Appendix C.

## 6.0 Quality Control

In addition to the standard laboratory Quality Control (QC), field QC samples for this sampling event included a field duplicate and a Field Blank (FB).

### 6.1 Field QC

A field duplicate water sample was collected from sample location DR-3. During sample collection, the duplicate sample bottles were filled simultaneously from the discharge stream of water. The duplicate sample was submitted to the analytical laboratory with the label of DR-8, so as to serve as a “blind duplicate.”

Table 5 compares the analytical results for total metals from DR-3 and DR-8 and presents the Relative Percent Difference (RPD). The RPD for aqueous samples should be +/- 20%. All comparative values were within +/-20%, with the exception of nickel.

**TABLE 5 – Relative Percent Difference (RPD) of Total Metals Portion Between DR-3 and Duplicate Sample DR-8**

Analyte (Total)	DR-3 ( $\mu\text{g/L}$ )	DR-8 ( $\mu\text{g/L}$ ) Duplicate of DR-3	RPD (%)
Aluminum	910	822	-10.16
Antimony	<0.50	<0.50	-
Arsenic	1.6	1.4	-13.33
Barium	21.9	21.4	-2.31
Beryllium	1.2	1.2	-
Cadmium	18.4	18.4	0.00
Calcium	239000	240000	0.42
Chromium	1.0	0.84	-17.39
Copper	150	142	-5.48
Iron	9620	9250	-3.92
Lead	15.5	14.4	-
Magnesium	20500	20300	-0.98
Manganese	1980	1950	-1.53

Mercury	<0.20	<0.20	-
Nickel	4.7	8.1	53.13
Potassium	1680	1650	-1.80
Selenium	<0.50	<0.50	-
Silver	<0.50	<0.50	-
Sodium	12000	11500	-4.26
Thallium	<0.10	<0.10	-
Vanadium	0.30	0.27	-
Zinc	3680	3630	-1.37
Alkalinity (mg/L)	<20.0	106	-
Hardness	680000	683000	0.44
TDS (mg/L)	1050	1060	0.95
TSS (mg/L)	28.0	24.0	-15.38
Cyanide	<0.0050	0.033	-
Salinity (mg/L)	766	778	1.55
Sulfate (mg/L)	584	614	5.01

A Field Blank (FB) was collected by analyzing a bottle of distilled water in the field in the same manner as any other sample. The FB was analyzed for the same constituents as the other samples. The FB had below detectable concentrations for all metals except for total chromium, total sodium, dissolved aluminum, dissolved barium, dissolved calcium, dissolved chromium, dissolved magnesium, dissolved manganese, dissolved potassium, dissolved sodium, potentially dissolved Arsenic, potentially dissolved barium, potentially dissolved chromium, potentially dissolved copper, potentially dissolved iron, potentially dissolved lead, potentially dissolved manganese, and potentially dissolved nickel. The pH was slightly below neutral, the Electrical Conductivity (EC) was non-detectable, it showed a non-detectable level of alkalinity, and a low level of TDS.

## 6.2 Laboratory QC

The laboratory control sample (LCS), method blank, matrix spike, and matrix spike duplicate sample results were all within the established limits of concentration, percent recovery, and relative percent difference, with several minor exceptions. Please refer to the Laboratory QC Results in Appendix D for exceptions and for a full QC report.

**Appendix A**  
**Sampling Location Maps**

General Notes



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No.	Revision/Issue	Date

BP / ARCO



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SAMOPLING

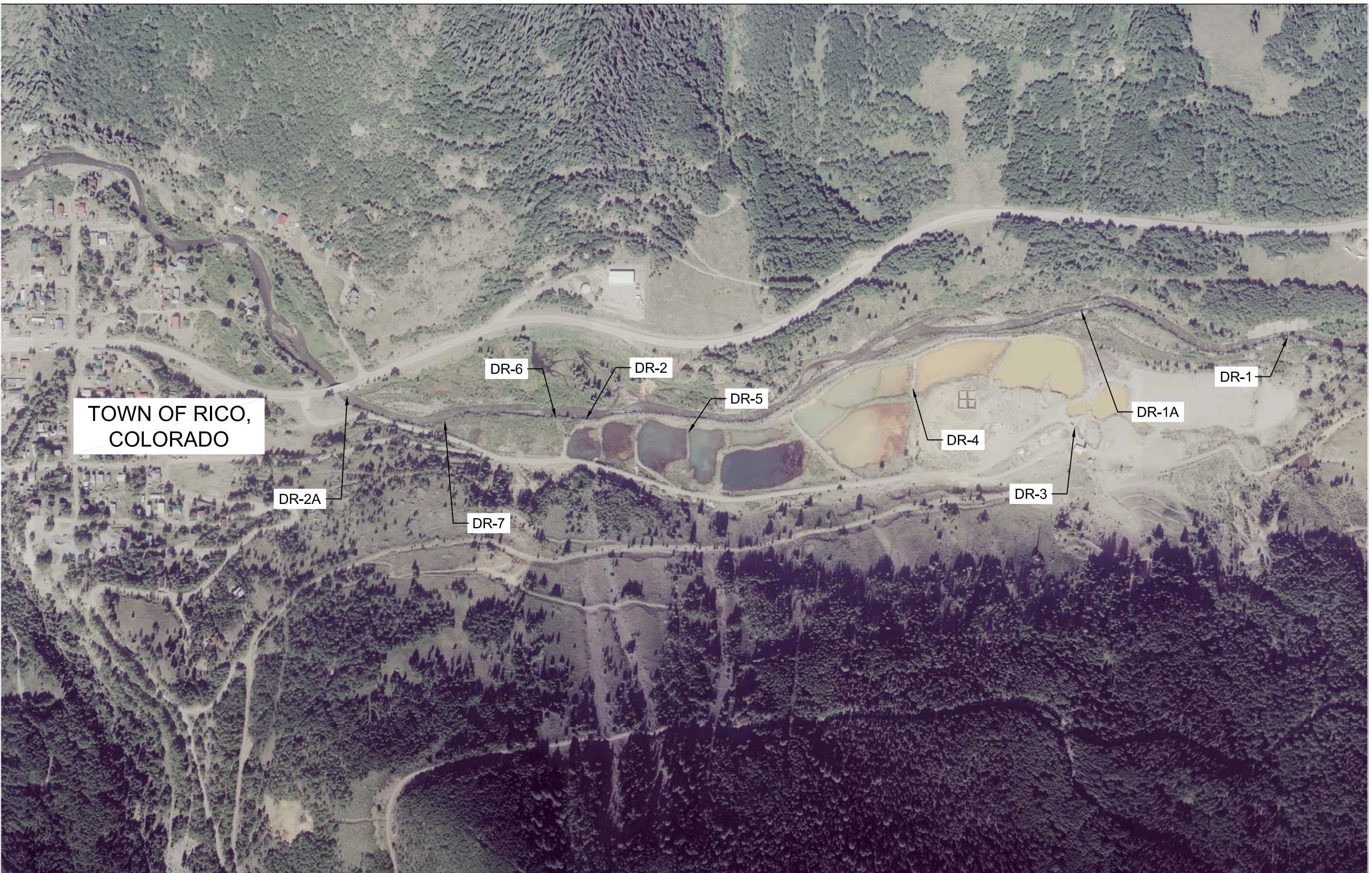
ST. LOIUS PONDS AREA  
SAMPLING LOCATIONS

RICO,  
COLORADO

DRAWN BY: MAD  
ENGINEER: MAD  
APPROVED: CES

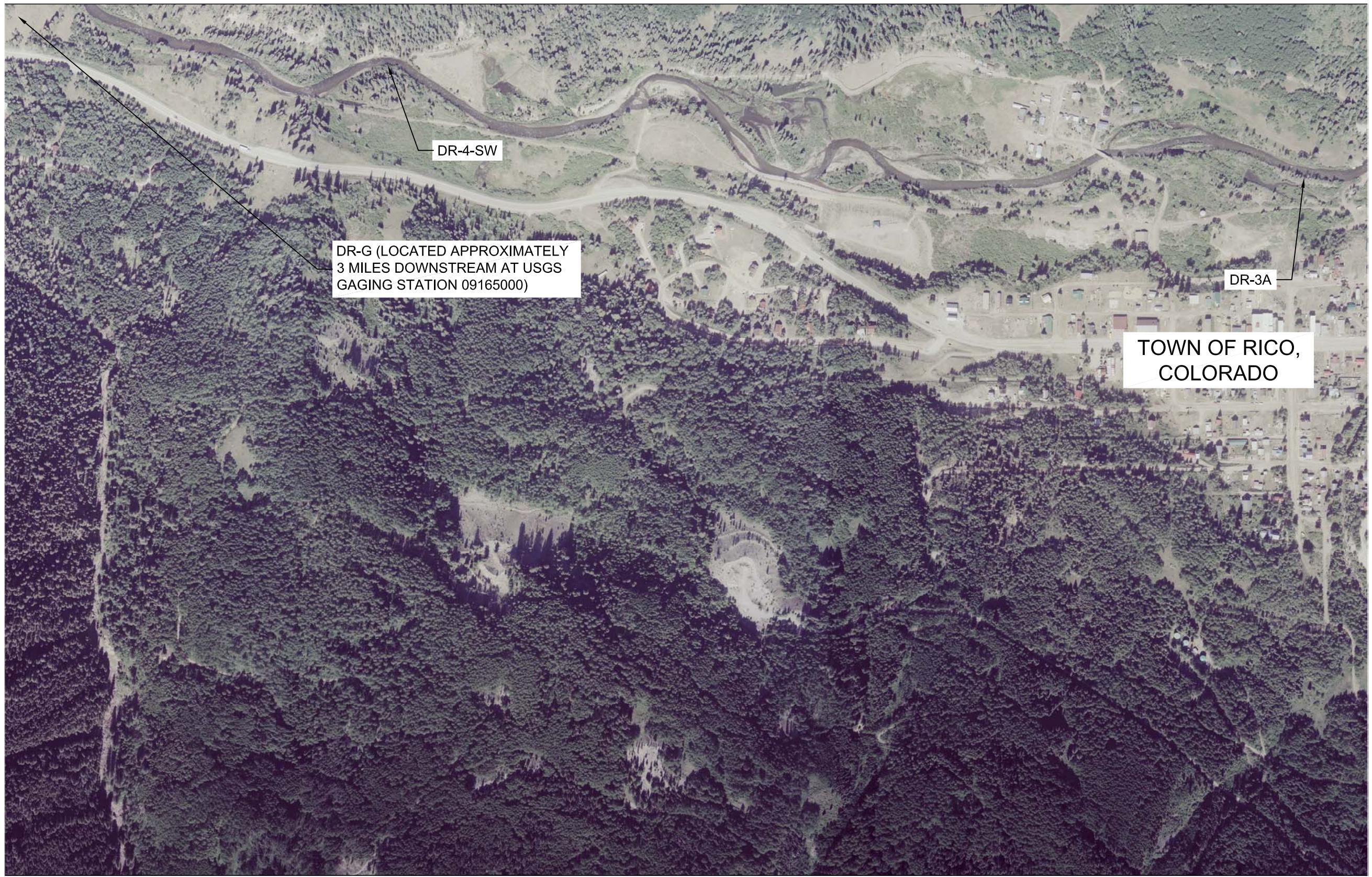
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Date: 5-Apr-12  
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Sheet 1



## 01 ST LOUIS PONDS SAMPLING LOCATIONS

SCALE - 1" = 500'



**1a** SAMPLING LOCATION SOUTH OF RICO, CO  
SCALE - 1" = 500'

SCALE - 1" = 500'

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## General Notes



**SCALE IN FEET**



A horizontal scale bar with tick marks at 0, 250, and 500. The word "SCALE IN FEET" is written above the bar.

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DR-3A

# TOWN OF RICO, COLORADO

No.	Revision / Issue	Date

BP / ARCO



ANDERSON

**ENGINEERING COMPANY, INC.**

877 WEST 2100 SOUTH  
SALT LAKE CITY, UTAH 84119  
(800) 520-0000

## RICO SURFACE WATER SAMPLING

SAMPLING LOCATIONS SOUTH  
OF RICO, CO

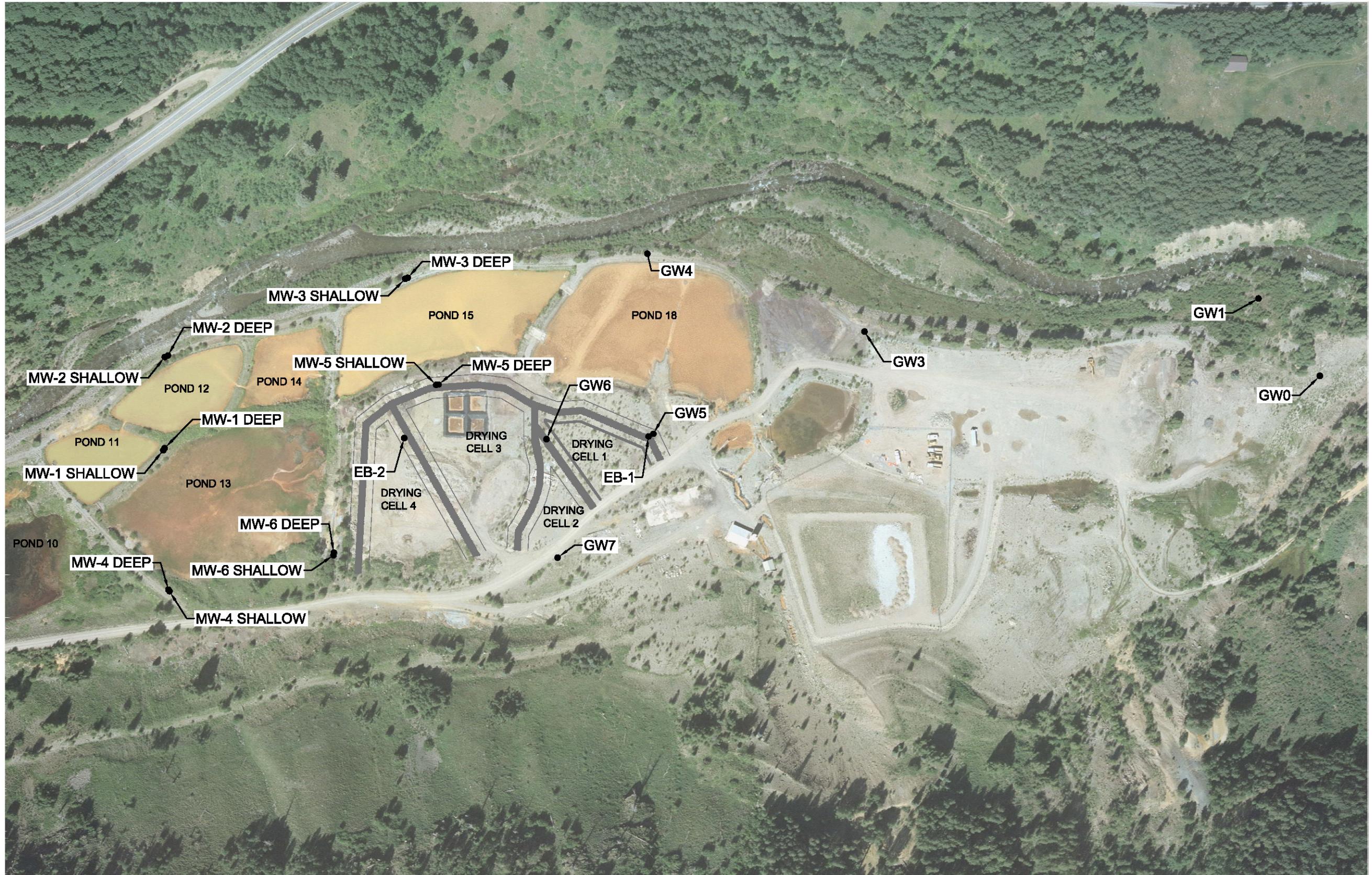
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1a



## 02 MONITORING WELL LOCATIONS

SCALE - 1" = 200'

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## **Appendix B**

### **Data Tables**

TABLE 3 - Sampling Field Data and Station Information Summary, April 2012

Sample Location	Date of Sample Collection	Field Technicians	Field Measurements						GPS Location (Colorado State Plane NAD83)		Flow Data		Comments	
			pH	Temp (°C)	EC (mS/cm)	Dissolved Oxygen (ppm)	Well Casing Elevation (ft)	Well Water Elevation (ft)	Northing	Easting	Stream Cross section area (ft²)	Flowrate cfs / gpm		
DR-1	4/18/2012	M. DeFriez, T. Barbee	8.66	6.78	0.552	2.42	NA	NA	1389970.4600	2267573.6490	38.3	96.2	43175	Cross section on the Dolores River above St. Louis settling pond system (approximately 800 ft north of the northern edge of Pond 18). Flow measurement by flowmeter.
DR-2	4/18/2012	M. DeFriez, T. Barbee	8.07	9.06	0.241	8.49	NA	NA	1386660.9610	2267971.4630	56.5	89.7	40257	Cross section on the Dolores River, approximately 150 ft north of system outfall. Flow measurement by flowmeter.
DR-3	4/18/2012	M. DeFriez, T. Barbee	6.65	17.72	1.363	5.14	NA	NA	1388963.0808	2268004.6974	NA	1.38	619	St Louis adit discharge. Flow measurement by installed Parshall Flume. Water level by installed STI Ultrasonic IRU-5180 water level meter and an OTT PLS submersible pressure transducer.
DR-4	4/18/2012	M. DeFriez, T. Barbee	7.49	12.89	1.380	7.43	NA	NA	1388153.6284	2267799.1579	NA	1.34	601	Pond 15 discharge. Flow measurement by flowmeter.
DR-5	4/18/2012	M. DeFriez, T. Barbee	7.57	13.00	1.359	7.05	NA	NA	1387273.4503	2268024.8524	NA	1.20	539	Pond 8 was discharging at multiple small locations as well as the spillway. Due to the shallow water and multiple paths, accurate flow measurements could not be determined for this sampling location and period. Leakage was estimated by water balance. Flows estimated by water balance and water level reading.
DR-6	4/18/2012	M. DeFriez, T. Barbee	7.09	10.50	1.398	9.77	NA	NA	1386431.4984	2267964.5711	NA	1.18	530	Outfall to Dolores River. Flow measurement by installed Parshall Flume. Water level by OTT Orpheus Mini submersible pressure transducer.
DR-7	4/18/2012	M. DeFriez, T. Barbee	7.42	8.89	0.314	9.45	NA	NA	1385880.1050	2267983.4510	50.3	105.3	47259	Cross section on the Dolores River, approximately 500 ft below St. Louis settling pond system outfall. Flow measurement by flowmeter.
DR-8	4/18/2012	M. DeFriez, T. Barbee	6.65	17.72	1.361	5.14	NA	NA	1388963.0808	2268004.6974	NA	NA	NA	DR-8 is a duplicate sample of DR-3 (or a location of sampler's choosing). See comments for DR-3.
DR-4-SW	4/18/2012	M. DeFriez, T. Barbee	7.62	10.17	0.304	9.98	NA	NA	1379176.1190	2266285.0850	43.0	123.2	55292	Cross section on the Dolores River approximately 100 below the Silver Swan site. Flow measurement by flowmeter.
DR-G	4/18/2012	M. DeFriez, T. Barbee	8.28	12.56	0.291	7.14	NA	NA	1364029.7850	2258752.9060	34.1	97.1	43578	Cross section on the Dolores River at USGS gauging station #09165000, approximately 3.5 miles downstream of the Silver Swan site. Flow measurement by flowmeter.
FB	4/18/2012	M. DeFriez, T. Barbee	6.81	10.56	0.0	6.88	NA	NA	N/A	N/A	NA	NA	NA	Field blank
GW-1	4/19/2012	M. DeFriez, T. Barbee	7.80	7.39	0.429	4.65	8840.13	8839.06	1390006.0210	2267642.6870	NA	NA	NA	Located on the north end of the site, approximately a quarter mile north of the northern edge of Pond 18.
GW-3	4/19/2012	M. DeFriez, T. Barbee	7.05	8.00	0.720	5.42	8836.68	8824.33	1389221.9930	2267708.3940	NA	NA	NA	Located approximately 200 feet north of the northern edge of pond 18, and approximately 60 feet west of the main access road.
GW-4	4/19/2012	M. DeFriez, T. Barbee	7.09	6.56	0.966	5.61	8826.79	8817.31	1388790.0720	2267553.5420	NA	NA	NA	Located on the western flood dike of Pond 18, approximately midway along the dike.
GW-5	4/19/2012	M. DeFriez, T. Barbee	6.76	9.50	2.82	5.21	8839.52	8819.48	1388802.0650	2267911.8020	NA	NA	NA	Located on the northern edge of the former Pond 17 area, or on the northern dike of the newly constructed drying cell 1.
GW-6	NA	NA	WELL OBSTRUCTED				8837.45	NA	1388589.3950	2267922.5090	NA	NA	NA	Located on the middle of the former Pond 17 area, or on the western edge of the south dike of the newly constructed drying cell 1. Could not obtain sample due to obstruction near bottom of well.
GW-7	4/19/2012	M. DeFriez, T. Barbee	6.47	11.17	1.651	4.34	8840.00	8819.30	1388611.4370	2268158.0170	NA	NA	NA	GW-7 Located on the eastern edge of the access road directly across from the former Pond 17, or directly across from the newly constructed drying cell 2.
EB-1	4/19/2012	M. DeFriez, T. Barbee	6.81	10.17	2.51	5.02	8839.86	8819.32	1388792.4420	2267916.9080	NA	NA	NA	Located on the northern edge of the former Pond 17 area, or on the northern dike of the newly constructed drying cell 1. It is within ten feet of GW-5.
EB-2	4/19/2012	M. DeFriez, T. Barbee	5.86	11.28	5.07	3.33	8829.84	8814.44	1388306.1480	2267920.2500	NA	NA	NA	Located on the southern portion of the former Pond 16 area, or on the western edge of the south dike of the newly constructed drying cell 3.
MW-1 SHALLOW	4/19/2012	M. DeFriez, T. Barbee	6.31	9.06	1.337	3.75	8810.87	8804.71	1387826.7470	2267944.5160	NA	NA	NA	Both wells are located about 4 feet apart on the western embankment of Pond 13 at the division between Pond 11 and Pond 12.
MW-1 DEEP	4/19/2012	M. DeFriez, T. Barbee	6.84	13.06	1.305	4.83	8810.85	8802.14	1387829.4070	2267940.5680	NA	NA	NA	
MW-2 SHALLOW	NA	M. DeFriez, T. Barbee	COULD NOT OBTAIN ENOUGH SAMPLE				8810.23	8800.24	1387829.7580	2267759.0810	NA	NA	NA	Both wells are located about 4 feet apart on the western flood embankment of Pond 12, about mid-way along the pond.
MW-2 DEEP	4/19/2012	M. DeFriez, T. Barbee	6.72	11.00	1.501	5.09	8810.21	8800.37	1387836.0950	2267756.0910	NA	NA	NA	MW-2 SHALLOW had less than one inch of water.
MW-3 SHALLOW	NA	M. DeFriez, T. Barbee	DRY WELL				8819.57	NA	1388308.0910	2267603.5420	NA	NA	NA	Bothe wells are located about 4 feet apart on the western flood embankment of Pond 15, on the southern half of the embankment. MW-3 SHALLOW was dry.
MW-3 DEEP	4/19/2012	M. DeFriez, T. Barbee	6.91	12.78	1.409	4.10	8819.72	8809.90	1388313.2060	2267601.6050	NA	NA	NA	
MW-4 SHALLOW	4/19/2012	M. DeFriez, T. Barbee	8.30	14.28	1.366	3.98	8816.83	8798.54	1387836.9670	2268221.9370	NA	NA	NA	Both wells are located about 4 feet apart on the southern embankment of Pond 13, approximately 60 west of the main east access road.
MW-4 DEEP	4/19/2012	M. DeFriez, T. Barbee	7.44	14.67	1.314	4.66	8816.77	8800.51	1387839.1320	2268224.8950	NA	NA	NA	
MW-5 SHALLOW	4/19/2012	M. DeFriez, T. Barbee	4.63	9.06	3.10	4.12	8830.95	8816.03	1388369.7050	2267814.3980	NA	NA	NA	Both wells are located about 4 feet apart on the western dike of drying cell 3 (refer to Figure 2).
MW-5 DEEP	4/19/2012	M. DeFriez, T. Barbee	6.64	11.39	2.28	4.21	8830.73	8814.54	1388374.5740	2267813.8150	NA	NA	NA	
MW-6 SHALLOW	4/19/2012	M. DeFriez, T. Barbee	6.94	17.56	1.632	2.63	8830.58	8808.93	1388166.1000	2268148.1000	NA	NA	NA	Both wells are located about 4 feet apart on northern embankment of Pond 13, approximately 75 feet west of the main east access road.
MW-6 DEEP	4/19/2012	M. DeFriez, T. Barbee	5.62	14.89	1.966	3.68	8830.11	8808.30	1388165.5290	2268153.3270	NA	NA	NA	

TABLE 4A - Surface Water Analytical Sampling Results Summary, April 2012

		Metals ( $\mu\text{g/L}$ )																			Non-Metals (mg/L, unless otherwise indicated)										
Field Sample ID	Date Collected	Fraction	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Copper	Iron	Lead	Magnesium	Manganese	Mercury	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	Zinc	Alkalinity	Hardness ( $\mu\text{g/L}$ as $\text{CaCO}_3$ )	TDS	TSS	Cyanide	Salinity	Sulfate
DR-1	4/18/12	Total	274	<0.50	<0.50	50.7	<0.20	<0.080	27600	0.89	1.0	253	0.38	4180	14.4	<0.20	0.59	608	<0.50	2090	<0.10	0.55	5.4	<20.0	86100	118	7.0	<0.0050	111	15.9	
		Dissolved	105	<0.50	<0.50	47.8	<0.20	<0.080	25200	1.5	1.0	89.4	0.16	4070	8.6	<0.20	0.91	562	<0.50	0.96	2120	<0.10	0.29	<5.0							
		Potentially Dissolved	34.6J	0.17J	0.54J	48.8	<0.50	<0.50	27600	1.4	2.6	81.8	16.3	4290	25.0	-	3.1	489J	<1.0	<0.50	2060	0.038J	<1.0	30.8							
DR-2	4/18/12	Total	453	<0.50	<0.50	51.7	<0.20	<0.080	31100	0.73	1.0	324	0.51	4820	43.4	<0.20	0.65	666	<0.50	<0.50	2340	<0.10	0.80	8.0	<20.0	97500	130	7.0	<0.0050	125	23.1
		Dissolved	101	<0.50	<0.50	49.1	<0.20	<0.080	29200	1.5	0.89	86.7	0.15	4320	33.3	<0.20	0.86	598	<0.50	<0.50	2220	<0.10	0.28	8.1							
		Potentially Dissolved	38.4J	0.13J	0.60J	49.2	<0.50	0.16J	30500	1.3	8.0	71.0	47.2	4520	46.2	-	7.4	534	<1.0	<0.50	2130	<1.0	<1.0	103							
DR-3	4/18/12	Total	910	<0.50	1.6	21.9	1.2	18.4	239000	1.0	150	9620	15.5	20500	1980	<0.20	4.7	1680	<0.50	<0.50	12000	<0.10	0.30	3680	<20.0	680000	1050	28.0	<0.0050	766	584
		Dissolved	12.6	<0.50	<0.50	24.1	<0.20	13.2	246000	0.96	2.7	<50.0	<0.10	19000	1950	<0.20	5.0	1730	<0.50	<0.50	11300	<0.10	<1.0	2880							
		Potentially Dissolved	17.4J	0.28J	0.47J	19.9	0.33J	16.4	250000	0.98J	7.6	1070	15.2	19800	2010	-	4.8	1610	<1.0	<0.50	11000	0.064J	<1.0	3330							
DR-4	4/18/12	Total	357	<0.50	0.61	20.1	0.70	15.5	242000	<0.50	64.8	4060	4.9	20600	1870	<0.20	4.3	1670	<0.50	<0.50	11800	<0.10	<1.0	3040	<20.0	688000	1070	6.0	<0.0050	808	611
		Dissolved	6.6	<0.50	<0.50	22.0	<0.20	11.8	243000	0.94	1.9	<50.0	<0.10	19100	1820	<0.20	5.0	1680	<0.50	<0.50	10900	<0.10	<1.0	2380							
		Potentially Dissolved	11.2J	0.27J	0.38J	19.2	<0.50	12.9	241000	1.6	2.7	56.6	5.3	19200	1970	-	4.3	1550	<1.0	<0.50	10600	0.063J	<1.0	2450							
DR-5	4/18/12	Total	116	<0.50	<0.50	19.6	0.22	12.5	246000	<0.50	20.9	1420	1.5	21400	1780	<0.20	4.0	1840	<0.50	<0.50	12000	<0.10	<1.0	2320	116	704000	1080	<5.0	0.0090	849	606
		Dissolved	9.1	<0.50	<0.50	20.3	<0.20	10.7	241000	1.1	2.4	<50.0	<0.10	19600	1740	<0.20	4.7	1890	<0.50	<0.50	11200	<0.10	<1.0	2020							
		Potentially Dissolved	<50.0	0.26J	0.41J	19.0	<0.50	11.0	252000	1.9	2.1	55.5	3.5	20300	1860	-	3.9	1780	<1.0	<0.50	11000	0.057J	<1.0	2020							
DR-6	4/18/12	Total	62.8	<0.50	<0.50	20.3	<0.20	11.0	258000	<0.50	11.4	894	0.88	24600	1680	<0.20	3.7	2530	<0.50	<0.50	14200	<0.10	<1.0	2180	144	745000	1140	<5.0	<0.0050	876	622
		Dissolved	84.0	<0.50	<0.50	20.7	<0.20	9.9	265000	0.96	1.9	<50.0	<0.10	22000	1650	<0.20	4.5	2440	<0.50	<0.50	13000	<0.10	<1.0	2090							
		Potentially Dissolved	<50.0	0.24J	0.32J	19.3	<0.50	10.2	266000	0.91J	1.8	59.5	4.1	23300	1750	-	3.3	2480	<1.0	<0.50	13400	0.050J	<1.0	2020							
DR-7	4/18/12	Total	284	<0.50	<0.50	49.0	<0.20	0.36	42700	0.81	1.4	324	0.30	6340	119	<0.20	0.84	958	<0.50	<0.50	3420	<0.10	0.53	91.7	82.0	133000	190	<5.0	0.026	185	49.9
		Dissolved	80.2	<0.50	<0.50	47.5	<0.20	0.53	43200	1.5	1.2	89.9	0.11	5940	117	<0.20	1.1	972	<0.50	<0.50	3450	<0.10	0.22	109							
		Potentially Dissolved	16.5J	0.13J	0.55J</td																										

TABLE 4B - Groundwater Analytical Sampling Results Summary, April 2012

Field Sample ID	Date Collected	Metals ( $\mu\text{g/L}$ )																			Non-Metals (mg/L, unless otherwise indicated)													
		Fraction	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Copper	Iron	Lead	Magnesium	Manganese	Mercury	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	Zinc	Alkalinity	Hardness ( $\mu\text{g/L}$ as $\text{CaCO}_3$ )	TDS	TSS	Cyanide	Salinity	Sulfate			
GW-1	4/19/12	Total	1770	<0.50	2.3	80.8	<0.20	0.27	39300	2.0	10.3	2600	10.2	5600	349	<0.20	2.8	1070	0.55	<0.50	2450	<0.10	3.6	29.5	94.0	121000	166	128	0.046	167	29.2			
		Dissolved	8.4	<0.50	<0.50	45.6	<0.20	0.094	39400	1.2	0.88	<50.0	<0.10	4540	3.8	0.30	<0.50	560	<0.50	<0.50	2340	<0.10	<0.10	28.2										
		Potentially Dissolved	<50.0	0.16J	0.25J	43.9	<0.50	<0.50	40900	2.1	9.1	53.4	1.9	4760	0.68J	-	0.81J	524	<1.0	<0.50	2210	<1.0	<1.0	7.1J										
GW-3	4/19/12	Total	10900	0.53	15.8	150	0.82	5.0	153000	14.9	103	19000	152	26100	1960	<0.20	14.1	4040	13.0	1.9	4460	0.12	19.0	754	176	489000	613	628	0.018	556	272			
		Dissolved	8.1	<0.50	<0.50	17.5	<0.20	0.16	148000	1.0	0.66	<50.0	<0.10	19100	1.6	<0.20	<0.50	2430	9.9	<0.50	3800	<0.10	<0.10	32.3										
		Potentially Dissolved	678	0.14J	2.1	29.1	<0.50	0.65	153000	2.1	9.7	1410	17.1	20500	279	-	2.6	2330	10.0	0.11J	3870	0.040J	0.99J	92.9										
GW-4	4/19/12	Total	3200	<0.50	3.4	67.1	<0.20	1.4	159000	4.9	16.6	6660	34.1	21400	528	<0.20	3.7	2020	<0.50	<0.50	4960	0.10	6.4	163	142	484000	687	198	<0.0050	569	323			
		Dissolved	8.2	<0.50	<0.50	22.5	<0.20	0.66	164000	1.1	0.62	<50.0	<0.10	18900	444	<0.20	1.2	1470	<0.50	<0.50	4680	<0.10	<0.10	49.9										
		Potentially Dissolved	8.3J	0.10J	0.48J	20.5	<0.50	0.17J	165000	0.96J	0.65J	798	3.5	19800	465	-	0.72J	1360	<1.0	<0.50	4670	<1.0	<1.0	33.3										
GW-5	4/19/12	Total	1240	0.80	317	26.5	0.55	11.2	576000	1.6	132	37500	3040	45400	12600	<0.20	65.7	8790	0.64	3.8	5740	0.54	1.6	51500	108	1630000	2370	140	<0.0050	1500	1410			
		Dissolved	5.8	<0.50	<0.50	20.6	<0.20	4.5	501000	1.2	<0.50	307	0.30	42700	11000	<0.20	64.8	8810	<0.50	<0.50	5230	0.29	<0.10	40300										
		Potentially Dissolved	254	0.15J	68.5	21.1	0.27J	6.0	484000	1.3	16.0	22700	570	43800	11800	-	64.5	8580	<1.0	0.11J	5630	0.41J	<1.0	45400										
GW-6	4/19/12	Total	OBSTRUCTED WELL																			OBSTRUCTED WELL												
		Dissolved																																
		Potentially Dissolved																																
GW-7	4/19/12	Total	1240	<0.50	1.0	14.2	0.23	7.9	273000	1.3	20.7	4060	81.0	31400	676	<0.20	9.0	2540	1.8	<0.50	7520	0.10	0.55	769	214	811000	1150	33.0	<0.0050	916	588			
		Dissolved	37.1	<0.50	<0.50	13.0	<0.20	6.8	282000	1.1	2.2	<50.0	0.22	29700	696	<0.20	9.1	2570	0.93	<0.50	6970	<0.10	<0.10	760										
		Potentially Dissolved	380	0.11J	0.27J	12.9	0.15J	7.7	283000	0.98J	7.6	1510	6.4	31100	696	-	8.3	2460	1.1	<0.50	7260	0.10J	<1.0	707										
EB-1	4/19/12	Total	134	<0.50	5.9	14.1	<0.20	0.47	554000	0.82	8.5	8800	33.0	32900	5800	<0.20	7.9	7450	<0.50	<0.50	8160	<0.10	0.24	1740	192	1520000	2090	26.0	0.028	1380	1080			
		Dissolved	5.2	<0.50	<0.50	12.2	<0.20	0.22	328000	<0.50	<0.50	<50.0	<0.10	31500	3640	<0.20	<0.50	6960	0.56	<0.50	8040	<0.10	<0.10	1410										
		Potentially Dissolved	8.2J	0.13J	0.58J	11.9	0.13J	<0.50	490000	0.96J	0.65J	6570	1.3	30600	5420	-	4.1	7000	<1.0	<0.50	8360	<1.0	<1.0	1550										

**Appendix C**

**Project Narrative and Laboratory Analytical Reports**

June 07, 2012

Mark DeFriez  
Anderson Engineering Company I  
977 W 2100 S.  
Salt Lake City, UT 84119

RE: Project: APRIL 2012 RICO WATER SAMPLING  
Pace Project No.: 60119875

Dear Mark DeFriez:

Enclosed are the analytical results for sample(s) received by the laboratory on April 21, 2012. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Heather Wilson

heather.wilson@pacelabs.com  
Project Manager

Enclosures



#### REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: APRIL 2012 RICO WATER SAMPLING  
 Pace Project No.: 60119875

### **Minnesota Certification IDs**

1700 Elm Street SE Suite 200, Minneapolis, MN 55414  
 A2LA Certification #: 2926.01  
 Alaska Certification #: UST-078  
 Alaska Certification #MN00064  
 Arizona Certification #: AZ-0014  
 Arkansas Certification #: 88-0680  
 California Certification #: 01155CA  
 EPA Region 8 Certification #: Pace  
 Florida/NELAP Certification #: E87605  
 Georgia Certification #: 959  
 Idaho Certification #: MN00064  
 Illinois Certification #: 200011  
 Iowa Certification #: 368  
 Kansas Certification #: E-10167  
 Louisiana Certification #: 03086  
 Louisiana Certification #: LA080009  
 Maine Certification #: 2007029  
 Maryland Certification #: 322  
 Michigan DEQ Certification #: 9909  
 Minnesota Certification #: 027-053-137

Mississippi Certification #: Pace  
 Montana Certification #: MT CERT0092  
 Nebraska Certification #: Pace  
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 New Mexico Certification #: Pace  
 New York Certification #: 11647  
 North Carolina Certification #: 530  
 North Dakota Certification #: R-036  
 North Dakota Certification #: R-036A  
 Ohio VAP Certification #: CL101  
 Oklahoma Certification #: D9921  
 Oklahoma Certification #: 9507  
 Oregon Certification #: MN200001  
 Pennsylvania Certification #: 68-00563  
 Puerto Rico Certification  
 Tennessee Certification #: 02818  
 Texas Certification #: T104704192  
 Washington Certification #: C754  
 Wisconsin Certification #: 999407970

### **Montana Certification IDs**

602 South 25th Street, Billings, MT 59101  
 EPA Region 8 Certification #: 8TMS-Q  
 Idaho Certification #: MT00012

Montana Certification #: MT CERT0040  
 NVLAP Certification #: 101292-0  
 Minnesota Dept of Health Certification #: 030-999-442

### **Washington Certification IDs**

940 South Harney Street, Seattle, WA 98108  
 Alaska CS Certification #: UST-025  
 Arizona Certification #: AZ0770  
 California Certification #: 01153CA

Florida/NELAP Certification #: E87617  
 Oregon Certification #: WA200007  
 Washington Certification #: C555

### **Kansas Certification IDs**

9608 Loiret Boulevard, Lenexa, KS 66219  
 A2LA Certification #: 2456.01  
 Arkansas Certification #: 05-008-0  
 Illinois Certification #: 001191  
 Iowa Certification #: 118  
 Kansas/NELAP Certification #: E-10116

Louisiana Certification #: 03055  
 Nevada Certification #: KS000212008A  
 Oklahoma Certification #: 9205/9935  
 Texas Certification #: T104704407-08-TX  
 Utah Certification #: 9135995665

## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: APRIL 2012 RICO WATER SAMPLING  
Pace Project No.: 60119875

Lab ID	Sample ID	Matrix	Date Collected	Date Received
60119875001	DR-1	Water	04/18/12 09:00	04/21/12 08:40
60119875002	DR-2	Water	04/18/12 11:10	04/21/12 08:40
60119875003	DR-3	Water	04/18/12 09:30	04/21/12 08:40
60119875004	DR-4	Water	04/18/12 10:10	04/21/12 08:40
60119875005	DR-5	Water	04/18/12 10:40	04/21/12 08:40
60119875006	DR-6	Water	04/18/12 11:00	04/21/12 08:40
60119875007	DR-7	Water	04/18/12 11:30	04/21/12 08:40
60119875008	DR-8	Water	04/18/12 10:15	04/21/12 08:40
60119875009	DR-4-SW	Water	04/18/12 12:00	04/21/12 08:40
60119875010	DR-G	Water	04/18/12 12:25	04/21/12 08:40
60119875011	FB	Water	04/18/12 09:50	04/21/12 08:40
60119875012	GW-1	Water	04/19/12 08:30	04/21/12 08:40
60119875013	GW-3	Water	04/19/12 09:00	04/21/12 08:40
60119875014	GW-4	Water	04/19/12 09:15	04/21/12 08:40
60119875015	GW-5	Water	04/19/12 09:45	04/21/12 08:40
60119875016	GW-7	Water	04/19/12 10:00	04/21/12 08:40
60119875017	MW-1 SHALLOW	Water	04/19/12 11:15	04/21/12 08:40
60119875018	MW-1 DEEP	Water	04/19/12 11:20	04/21/12 08:40
60119875019	MW-2 DEEP	Water	04/19/12 10:10	04/21/12 08:40
60119875020	MW-3 DEEP	Water	04/19/12 10:15	04/21/12 08:40
60119875021	EB-1	Water	04/19/12 09:30	04/21/12 08:40
60119875022	EB-2	Water	04/19/12 11:30	04/21/12 08:40
60119875023	MW-4 SHALLOW	Water	04/19/12 12:00	04/21/12 08:40
60119875024	MW-4 DEEP	Water	04/19/12 12:10	04/21/12 08:40
60119875025	MW-5 SHALLOW	Water	04/19/12 12:30	04/21/12 08:40
60119875026	MW-5 DEEP	Water	04/19/12 12:35	04/21/12 08:40
60119875027	MW-6 SHALLOW	Water	04/19/12 13:00	04/21/12 08:40
60119875028	MW-6 DEEP	Water	04/19/12 13:10	04/21/12 08:40

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## SAMPLE ANALYTE COUNT

Project: APRIL 2012 RICO WATER SAMPLING  
Pace Project No.: 60119875

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
60119875001	DR-1	EPA 200.7	JDH	4	PASI-K
		EPA 200.8	RJS	22	PASI-M
		EPA 200.8	RR1	21	PASI-M
		EPA 200.8	JGP, SMW	17	PASI-K
		EPA 245.1	TEM	1	PASI-M
		EPA 245.1	JDH	1	PASI-K
		SM 2510B	CAC	1	
		Calculated	CAC	2	
		SM 2320B	NDL	3	PASI-K
		SM 2540C	NDL	1	PASI-K
		SM 2540D	NDL	1	PASI-K
		EPA 300.0	CMS	1	PASI-S
		SM 4500-CN-E	AJM	1	PASI-K
60119875002	DR-2	EPA 200.7	JDH	4	PASI-K
		EPA 200.8	RJS	22	PASI-M
		EPA 200.8	RR1	21	PASI-M
		EPA 200.8	JGP, SMW	17	PASI-K
		EPA 245.1	TEM	1	PASI-M
		EPA 245.1	JDH	1	PASI-K
		SM 2510B	CAC	1	
		Calculated	CAC	2	
		SM 2320B	NDL	3	PASI-K
		SM 2540C	NDL	1	PASI-K
		SM 2540D	NDL	1	PASI-K
		EPA 300.0	CMS	1	PASI-S
		SM 4500-CN-E	AJM	1	PASI-K
60119875003	DR-3	EPA 200.7	JDH	4	PASI-K
		EPA 200.8	RJS	22	PASI-M
		EPA 200.8	RR1	21	PASI-M
		EPA 200.8	JGP, SMW	17	PASI-K
		EPA 245.1	TEM	1	PASI-M
		EPA 245.1	JDH	1	PASI-K
		SM 2510B	CAC	1	
		Calculated	CAC	2	
		SM 2320B	NDL	3	PASI-K
		SM 2540C	NDL	1	PASI-K
		SM 2540D	NDL	1	PASI-K

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## SAMPLE ANALYTE COUNT

Project: APRIL 2012 RICO WATER SAMPLING  
Pace Project No.: 60119875

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
60119875004	DR-4	EPA 300.0	CMS	1	PASI-S
		SM 4500-CN-E	AJM	1	PASI-K
		EPA 200.7	JDH	4	PASI-K
		EPA 200.8	RJS	22	PASI-M
		EPA 200.8	RR1	21	PASI-M
		EPA 200.8	JGP, SMW	17	PASI-K
		EPA 245.1	TEM	1	PASI-M
		EPA 245.1	JDH	1	PASI-K
		SM 2510B	CAC	1	
		Calculated	CAC	2	
60119875005	DR-5	SM 2320B	NDL	3	PASI-K
		SM 2540C	NDL	1	PASI-K
		SM 2540D	NDL	1	PASI-K
		EPA 300.0	CMS	1	PASI-S
		SM 4500-CN-E	AJM	1	PASI-K
		EPA 200.7	JDH	4	PASI-K
		EPA 200.8	RJS	22	PASI-M
		EPA 200.8	RR1	21	PASI-M
		EPA 200.8	JGP, SMW	17	PASI-K
		EPA 245.1	TEM	1	PASI-M
60119875006	DR-6	EPA 245.1	JDH	1	PASI-K
		SM 2510B	CAC	1	
		Calculated	CAC	2	
		SM 2320B	NDL	3	PASI-K
		SM 2540C	NDL	1	PASI-K
		SM 2540D	NDL	1	PASI-K
		EPA 300.0	CMS	1	PASI-S
		SM 4500-CN-E	AJM	1	PASI-K
		EPA 200.7	JDH	4	PASI-K
		EPA 200.8	RJS	22	PASI-M

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## SAMPLE ANALYTE COUNT

Project: APRIL 2012 RICO WATER SAMPLING  
Pace Project No.: 60119875

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
60119875007	DR-7	SM 2540C	NDL	1	PASI-K
		SM 2540D	NDL	1	PASI-K
		EPA 300.0	CMS	1	PASI-S
		SM 4500-CN-E	AJM	1	PASI-K
		EPA 200.7	JDH	4	PASI-K
		EPA 200.8	RJS	22	PASI-M
		EPA 200.8	RR1	21	PASI-M
		EPA 200.8	JGP, SMW	17	PASI-K
		EPA 245.1	TEM	1	PASI-M
		EPA 245.1	JDH	1	PASI-K
		SM 2510B	CAC	1	
		Calculated	CAC	2	
		SM 2320B	NDL	3	PASI-K
		SM 2540C	NDL	1	PASI-K
		SM 2540D	NDL	1	PASI-K
		EPA 300.0	CMS	1	PASI-S
60119875008	DR-8	SM 4500-CN-E	AJM	1	PASI-K
		EPA 200.7	JDH	4	PASI-K
		EPA 200.8	RJS	22	PASI-M
		EPA 200.8	RR1	21	PASI-M
		EPA 200.8	JGP, SMW	17	PASI-K
		EPA 245.1	TEM	1	PASI-M
		EPA 245.1	JDH	1	PASI-K
		SM 2510B	CAC	1	
		Calculated	CAC	2	
		SM 2320B	NDL	3	PASI-K
		SM 2540C	NDL	1	PASI-K
		SM 2540D	NDL	1	PASI-K
		EPA 300.0	CMS	1	PASI-S
		SM 4500-CN-E	AJM	1	PASI-K
60119875009	DR-4-SW	EPA 200.7	JDH	4	PASI-K
		EPA 200.8	RJS	22	PASI-M
		EPA 200.8	RR1	21	PASI-M
		EPA 200.8	JGP, SMW	17	PASI-K
		EPA 245.1	TEM	1	PASI-M
		EPA 245.1	JDH	1	PASI-K
		SM 2510B	CAC	1	

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## SAMPLE ANALYTE COUNT

Project: APRIL 2012 RICO WATER SAMPLING  
Pace Project No.: 60119875

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
60119875010	DR-G	Calculated	CAC	2	
		SM 2320B	NDL	3	PASI-K
		SM 2540C	NDL	1	PASI-K
		SM 2540D	NDL	1	PASI-K
		EPA 300.0	CMS	1	PASI-S
		SM 4500-CN-E	AJM	1	PASI-K
		EPA 200.7	JDH	4	PASI-K
		EPA 200.8	RJS	22	PASI-M
		EPA 200.8	RR1	21	PASI-M
		EPA 200.8	JGP, SMW	17	PASI-K
		EPA 245.1	TEM	1	PASI-M
		EPA 245.1	JDH	1	PASI-K
		SM 2510B	CAC	1	
		Calculated	CAC	2	
		SM 2320B	NDL	3	PASI-K
		SM 2540C	NDL	1	PASI-K
		SM 2540D	NDL	1	PASI-K
		EPA 300.0	CMS	1	PASI-S
60119875011	FB	SM 4500-CN-E	AJM	1	PASI-K
		EPA 200.7	JDH	4	PASI-K
		EPA 200.8	RJS	22	PASI-M
		EPA 200.8	RR1	21	PASI-M
		EPA 200.8	JGP, SMW	17	PASI-K
		EPA 245.1	TEM	1	PASI-M
		EPA 245.1	JDH	1	PASI-K
		SM 2510B	CAC	1	
		Calculated	CAC	2	
		SM 2320B	NDL	3	PASI-K
		SM 2540C	NDL	1	PASI-K
		SM 2540D	NDL	1	PASI-K
		EPA 300.0	CMS	1	PASI-S
		SM 4500-CN-E	AJM	1	PASI-K
		EPA 200.7	JDH	4	PASI-K
		EPA 200.8	RJS	22	PASI-M
60119875012	GW-1	EPA 200.8	RR1	21	PASI-M
		EPA 200.8	JGP, SMW	17	PASI-K
		EPA 245.1	TEM	1	PASI-M

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## SAMPLE ANALYTE COUNT

Project: APRIL 2012 RICO WATER SAMPLING  
Pace Project No.: 60119875

Lab ID	Sample ID	Method	Analysts	Analytics Reported	Laboratory
60119875013	GW-3	EPA 245.1	JDH	1	PASI-K
		SM 2510B	CAC	1	
		Calculated	CAC	2	
		SM 2320B	NDL	3	PASI-K
		SM 2540C	NDL	1	PASI-K
		SM 2540D	NDL	1	PASI-K
		EPA 300.0	CMS	1	PASI-S
		SM 4500-CN-E	AJM	1	PASI-K
		EPA 200.7	JDH	4	PASI-K
		EPA 200.8	RJS	22	PASI-M
		EPA 200.8	RR1	21	PASI-M
		EPA 200.8	JGP, SMW	17	PASI-K
		EPA 245.1	TEM	1	PASI-M
		EPA 245.1	JDH	1	PASI-K
		SM 2510B	CAC	1	
		Calculated	CAC	2	
		SM 2320B	NDL	3	PASI-K
60119875014	GW-4	SM 2540C	NDL	1	PASI-K
		SM 2540D	NDL	1	PASI-K
		EPA 300.0	CMS	1	PASI-S
		SM 4500-CN-E	AJM	1	PASI-K
		EPA 200.7	JDH	4	PASI-K
		EPA 200.8	RJS	22	PASI-M
		EPA 200.8	RR1	21	PASI-M
		EPA 200.8	JGP, SMW	17	PASI-K
		EPA 245.1	TEM	1	PASI-M
		EPA 245.1	JDH	1	PASI-K
		SM 2510B	CAC	1	
		Calculated	CAC	2	
		SM 2320B	NDL	3	PASI-K
		SM 2540C	NDL	1	PASI-K
		SM 2540D	NDL	1	PASI-K
		EPA 300.0	CMS	1	PASI-S
		SM 4500-CN-E	AJM	1	PASI-K
60119875015	GW-5	EPA 200.7	JDH	4	PASI-K
		EPA 200.8	RJS	22	PASI-M
		EPA 200.8	RR1	21	PASI-M

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## SAMPLE ANALYTE COUNT

Project: APRIL 2012 RICO WATER SAMPLING  
Pace Project No.: 60119875

Lab ID	Sample ID	Method	Analysts	Analytics Reported	Laboratory
60119875016	GW-7	EPA 200.8	JGP, SMW	17	PASI-K
		EPA 245.1	TEM	1	PASI-M
		EPA 245.1	JDH	1	PASI-K
		SM 2510B	CAC	1	
		Calculated	CAC	2	
		SM 2320B	NDL	3	PASI-K
		SM 2540C	NDL	1	PASI-K
		SM 2540D	NDL	1	PASI-K
		EPA 300.0	CMS	1	PASI-S
		SM 4500-CN-E	AJM	1	PASI-K
		EPA 200.7	JDH	4	PASI-K
		EPA 200.8	RJS	22	PASI-M
		EPA 200.8	RR1	21	PASI-M
		EPA 200.8	JGP, SMW	17	PASI-K
		EPA 245.1	TEM	1	PASI-M
		EPA 245.1	JDH	1	PASI-K
		SM 2510B	CAC	1	
		Calculated	CAC	2	
		SM 2320B	NDL	3	PASI-K
		SM 2540C	NDL	1	PASI-K
		SM 2540D	NDL	1	PASI-K
		EPA 300.0	CMS	1	PASI-S
		SM 4500-CN-E	AJM	1	PASI-K
60119875017	MW-1 SHALLOW	EPA 200.7	JDH	4	PASI-K
		EPA 200.8	RJS	22	PASI-M
		EPA 200.8	RR1	21	PASI-M
		EPA 200.8	JGP, SMW	17	PASI-K
		EPA 245.1	TEM	1	PASI-M
		EPA 245.1	JDH	1	PASI-K
		SM 2510B	CAC	1	
		Calculated	CAC	2	
		SM 2320B	NDL	3	PASI-K
		SM 2540C	NDL	1	PASI-K
		SM 2540D	NDL	1	PASI-K
		EPA 300.0	CMS	1	PASI-S
		SM 4500-CN-E	AJM	1	PASI-K
60119875018	MW-1 DEEP	EPA 200.8	JDH	4	PASI-K

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## SAMPLE ANALYTE COUNT

Project: APRIL 2012 RICO WATER SAMPLING  
Pace Project No.: 60119875

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
60119875019	MW-2 DEEP	EPA 200.8	RJS	22	PASI-M
		EPA 200.8	RR1	21	PASI-M
		EPA 200.8	JGP, SMW	17	PASI-K
		EPA 245.1	TEM	1	PASI-M
		EPA 245.1	JDH	1	PASI-K
		SM 2510B	CAC	1	
		Calculated	CAC	2	
		SM 2320B	NDL	3	PASI-K
		SM 2540C	NDL	1	PASI-K
		SM 2540D	NDL	1	PASI-K
		EPA 300.0	CMS	1	PASI-S
		SM 4500-CN-E	AJM	1	PASI-K
		EPA 200.7	JDH	4	PASI-K
		EPA 200.8	RJS	22	PASI-M
		EPA 200.8	CJS, YT1	21	PASI-M
		EPA 200.8	JGP, SMW	17	PASI-K
		EPA 245.1	TEM	1	PASI-M
		EPA 245.1	JDH	1	PASI-K
60119875020	MW-3 DEEP	SM 2510B	CAC	1	
		Calculated	CAC	2	
		SM 2320B	NDL	3	PASI-K
		SM 2540C	NDL	1	PASI-K
		SM 2540D	NDL	1	PASI-K
		EPA 300.0	CMS	1	PASI-S
		SM 4500-CN-E	AJM	1	PASI-K
		EPA 200.7	JDH	4	PASI-K
		EPA 200.8	RR1	22	PASI-M
		EPA 200.8	RR1	21	PASI-M
		EPA 200.8	JGP, SMW	17	PASI-K
		EPA 245.1	TEM	1	PASI-M
		EPA 245.1	JDH	1	PASI-K
		SM 2510B	CAC	1	
		Calculated	CAC	2	
		SM 2320B	NDL	3	PASI-K
		SM 2540C	NDL	1	PASI-K
		SM 2540D	NDL	1	PASI-K
		EPA 300.0	CMS	1	PASI-S

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## SAMPLE ANALYTE COUNT

Project: APRIL 2012 RICO WATER SAMPLING  
Pace Project No.: 60119875

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
60119875021	EB-1	SM 4500-CN-E	AJM	1	PASI-K
		EPA 200.7	JDH	4	PASI-K
		EPA 200.8	RR1	22	PASI-M
		EPA 200.8	CJS, YT1	21	PASI-M
		EPA 200.8	JGP, SMW	17	PASI-K
		EPA 245.1	TEM	1	PASI-M
		EPA 245.1	JDH	1	PASI-K
		SM 2510B	CAC	1	
		Calculated	CAC	2	
		SM 2320B	NDL	3	PASI-K
60119875022	EB-2	SM 2540C	NDL	1	PASI-K
		SM 2540D	NDL	1	PASI-K
		EPA 300.0	CMS	1	PASI-S
		SM 4500-CN-E	AJM	1	PASI-K
		EPA 200.7	JDH	4	PASI-K
		EPA 200.8	RR1	22	PASI-M
		EPA 200.8	CJS, YT1	21	PASI-M
		EPA 200.8	JGP, SMW	17	PASI-K
		EPA 245.1	TEM	1	PASI-M
		EPA 245.1	JDH	1	PASI-K
60119875023	MW-4 SHALLOW	SM 2510B	CAC	1	
		Calculated	CAC	2	
		SM 2320B	NDL	3	PASI-K
		SM 2540C	NDL	1	PASI-K
		SM 2540D	NDL	1	PASI-K
		EPA 300.0	CMS	1	PASI-S
		SM 4500-CN-E	AJM	1	PASI-K
		EPA 200.7	JDH	4	PASI-K
		EPA 200.8	RR1	22	PASI-M
		EPA 200.8	CJS, YT1	21	PASI-M

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## SAMPLE ANALYTE COUNT

Project: APRIL 2012 RICO WATER SAMPLING  
Pace Project No.: 60119875

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
60119875024	<b>MW-4 DEEP</b>	SM 2540D	NDL	1	PASI-K
		EPA 300.0	CMS	1	PASI-S
		SM 4500-CN-E	AJM	1	PASI-K
		EPA 200.7	JDH	4	PASI-K
		EPA 200.8	RR1	22	PASI-M
		EPA 200.8	CJS, YT1	21	PASI-M
		EPA 200.8	JGP, SMW	17	PASI-K
		EPA 245.1	TEM	1	PASI-M
		EPA 245.1	JDH	1	PASI-K
		SM 2510B	CAC	1	
		Calculated	CAC	2	
		SM 2320B	NDL	3	PASI-K
		SM 2540C	NDL	1	PASI-K
		SM 2540D	NDL	1	PASI-K
		EPA 300.0	CMS	1	PASI-S
		SM 4500-CN-E	AJM	1	PASI-K
60119875025	<b>MW-5 SHALLOW</b>	EPA 200.7	JDH	4	PASI-K
		EPA 200.8	RR1	22	PASI-M
		EPA 200.8	CJS, YT1	21	PASI-M
		EPA 200.8	JGP, SMW	17	PASI-K
		EPA 245.1	TEM	1	PASI-M
		EPA 245.1	JDH	1	PASI-K
		SM 2510B	CAC	1	
		Calculated	CAC	2	
		SM 2320B	NDL	3	PASI-K
		SM 2540C	NDL	1	PASI-K
		SM 2540D	NDL	1	PASI-K
		EPA 300.0	CMS	1	PASI-S
		SM 4500-CN-E	AJM	1	PASI-K
60119875026	<b>MW-5 DEEP</b>	EPA 200.7	JDH	4	PASI-K
		EPA 200.8	RR1	22	PASI-M
		EPA 200.8	CJS, YT1	21	PASI-M
		EPA 200.8	JGP, SMW	17	PASI-K
		EPA 245.1	TEM	1	PASI-M
		EPA 245.1	JDH	1	PASI-K
		SM 2510B	CAC	1	
		Calculated	CAC	2	

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## SAMPLE ANALYTE COUNT

Project: APRIL 2012 RICO WATER SAMPLING  
Pace Project No.: 60119875

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
60119875027	<b>MW-6 SHALLOW</b>	SM 2320B	NDL	3	PASI-K
		SM 2540C	NDL	1	PASI-K
		SM 2540D	NDL	1	PASI-K
		EPA 300.0	CMS	1	PASI-S
		SM 4500-CN-E	AJM	1	PASI-K
		EPA 200.7	JDH	4	PASI-K
		EPA 200.8	RR1	22	PASI-M
		EPA 200.8	CJS, YT1	21	PASI-M
		EPA 200.8	JGP, SMW	17	PASI-K
		EPA 245.1	TEM	1	PASI-M
		EPA 245.1	JDH	1	PASI-K
		SM 2510B	CAC	1	
		Calculated	CAC	2	
		SM 2320B	NDL	3	PASI-K
60119875028	<b>MW-6 DEEP</b>	SM 2540C	NDL	1	PASI-K
		SM 2540D	NDL	1	PASI-K
		EPA 300.0	CMS	1	PASI-S
		SM 4500-CN-E	AJM	1	PASI-K
		EPA 200.7	JDH	4	PASI-K
		EPA 200.8	RR1	22	PASI-M
		EPA 200.8	CJS, YT1	21	PASI-M
		EPA 200.8	JGP, SMW	17	PASI-K
		EPA 245.1	TEM	1	PASI-M
		EPA 245.1	JDH	1	PASI-K
		SM 2510B	CAC	1	
		Calculated	CAC	2	
		SM 2320B	NDL	3	PASI-K
		SM 2540C	NDL	1	PASI-K
		SM 2540D	NDL	1	PASI-K
		EPA 300.0	CMS	1	PASI-S
		SM 4500-CN-E	AJM	1	PASI-K

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## PROJECT NARRATIVE

Project: APRIL 2012 RICO WATER SAMPLING  
Pace Project No.: 60119875

---

**Method:** EPA 200.7

**Description:** 200.7 Potentially Diss. Metals

**Client:** BP Anderson Engineering Company Inc.

**Date:** June 07, 2012

### General Information:

28 samples were analyzed for EPA 200.7. All samples were received in acceptable condition with any exceptions noted below.

### Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

### Sample Preparation:

The samples were prepared in accordance with EPA 200.7 with any exceptions noted below.

### Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

### Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

### Method Blank:

All analytes were below the report limit in the method blank with any exceptions noted below.

### Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

### Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: MPRP/17878

A matrix spike and matrix spike duplicate (MS/MSD) were performed on the following sample(s): 60119875025

M0: Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

- MSD (Lab ID: 990685)
- Calcium, Dissolved

### Duplicate Sample:

All duplicate sample results were within method acceptance criteria with any exceptions noted below.

### Additional Comments:

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## PROJECT NARRATIVE

Project: APRIL 2012 RICO WATER SAMPLING  
Pace Project No.: 60119875

---

**Method:** **EPA 200.8**

**Description:** 200.8 MET ICPMS

**Client:** BP Anderson Engineering Company Inc.

**Date:** June 07, 2012

### General Information:

28 samples were analyzed for EPA 200.8. All samples were received in acceptable condition with any exceptions noted below.

### Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

### Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

### Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

### Internal Standards:

All internal standards were within QC limits with any exceptions noted below.

### Method Blank:

All analytes were below the report limit in the method blank with any exceptions noted below.

### Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

### Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: ICPM/32007

A matrix spike and matrix spike duplicate (MS/MSD) were performed on the following sample(s): 10189803002,60119875020

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 1181827)
  - Aluminum
  - Magnesium
  - Manganese
  - Sodium
- MS (Lab ID: 1181829)
  - Copper
  - Magnesium
  - Silver
  - Sodium
- MSD (Lab ID: 1181828)
  - Aluminum
  - Magnesium
  - Manganese

## REPORT OF LABORATORY ANALYSIS

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## PROJECT NARRATIVE

Project: APRIL 2012 RICO WATER SAMPLING  
Pace Project No.: 60119875

---

**Method:** EPA 200.8

**Description:** 200.8 MET ICPMS

**Client:** BP Anderson Engineering Company Inc.

**Date:** June 07, 2012

QC Batch: ICPM/32009

A matrix spike and matrix spike duplicate (MS/MSD) were performed on the following sample(s): 60119875001,60119875011

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 1181837)
  - Aluminum
  - Calcium
- MSD (Lab ID: 1181838)
  - Aluminum
  - Calcium
  - Iron
  - Magnesium
  - Sodium

**Duplicate Sample:**

All duplicate sample results were within method acceptance criteria with any exceptions noted below.

**Additional Comments:**

Analyte Comments:

QC Batch: ICPM/32007

D3: Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.

- EB-2 (Lab ID: 60119875022)
  - Silver
  - Chromium
  - Thallium
  - Vanadium
- MW-5 SHALLOW (Lab ID: 60119875025)
  - Silver

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## PROJECT NARRATIVE

Project: APRIL 2012 RICO WATER SAMPLING  
Pace Project No.: 60119875

---

**Method:** **EPA 200.8**

**Description:** 200.8 MET ICPMS, Dissolved

**Client:** BP Anderson Engineering Company Inc.

**Date:** June 07, 2012

**General Information:**

28 samples were analyzed for EPA 200.8. All samples were received in acceptable condition with any exceptions noted below.

**Hold Time:**

The samples were analyzed within the method required hold times with any exceptions noted below.

**Initial Calibrations (including MS Tune as applicable):**

All criteria were within method requirements with any exceptions noted below.

**Continuing Calibration:**

All criteria were within method requirements with any exceptions noted below.

**Internal Standards:**

All internal standards were within QC limits with any exceptions noted below.

**Method Blank:**

All analytes were below the report limit in the method blank with any exceptions noted below.

**Laboratory Control Spike:**

All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: ICPM/32214

A matrix spike and matrix spike duplicate (MS/MSD) were performed on the following sample(s): 60119875001,60119875011

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 1189307)
  - Aluminum, Dissolved
  - Calcium, Dissolved
- MSD (Lab ID: 1189308)
  - Aluminum, Dissolved
  - Calcium, Dissolved

QC Batch: ICPM/32215

A matrix spike and matrix spike duplicate (MS/MSD) were performed on the following sample(s): 10190616021,60119875021

D6: The relative percent difference (RPD) between the sample and sample duplicate exceeded laboratory control limits.

- MSD (Lab ID: 1189313)
  - Aluminum, Dissolved

**Duplicate Sample:**

All duplicate sample results were within method acceptance criteria with any exceptions noted below.

**Additional Comments:**

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## PROJECT NARRATIVE

Project: APRIL 2012 RICO WATER SAMPLING  
Pace Project No.: 60119875

---

**Method:** **EPA 200.8**

**Description:** 200.8 MET ICPMS, Dissolved

**Client:** BP Anderson Engineering Company Inc.

**Date:** June 07, 2012

Analyte Comments:

QC Batch: ICPM/32214

B: Analyte was detected in the associated method blank.

- DR-1 (Lab ID: 60119875001)
  - Manganese, Dissolved
- DR-2 (Lab ID: 60119875002)
  - Manganese, Dissolved
- DR-3 (Lab ID: 60119875003)
  - Manganese, Dissolved
- DR-4 (Lab ID: 60119875004)
  - Manganese, Dissolved
- DR-4-SW (Lab ID: 60119875009)
  - Manganese, Dissolved
- DR-5 (Lab ID: 60119875005)
  - Manganese, Dissolved
- DR-6 (Lab ID: 60119875006)
  - Manganese, Dissolved
- DR-7 (Lab ID: 60119875007)
  - Manganese, Dissolved
- DR-8 (Lab ID: 60119875008)
  - Manganese, Dissolved
- DR-G (Lab ID: 60119875010)
  - Manganese, Dissolved
- FB (Lab ID: 60119875011)
  - Manganese, Dissolved
- GW-1 (Lab ID: 60119875012)
  - Manganese, Dissolved
- GW-3 (Lab ID: 60119875013)
  - Manganese, Dissolved
- GW-4 (Lab ID: 60119875014)
  - Manganese, Dissolved
- GW-5 (Lab ID: 60119875015)
  - Manganese, Dissolved
- GW-7 (Lab ID: 60119875016)
  - Manganese, Dissolved
- MW-1 DEEP (Lab ID: 60119875018)
  - Manganese, Dissolved
- MW-1 SHALLOW (Lab ID: 60119875017)
  - Manganese, Dissolved
- MW-3 DEEP (Lab ID: 60119875020)
  - Manganese, Dissolved

QC Batch: ICPM/32215

E: Analyte concentration exceeded the calibration range. The reported result is estimated.

- MS (Lab ID: 1189312)
  - Calcium, Dissolved

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## PROJECT NARRATIVE

Project: APRIL 2012 RICO WATER SAMPLING  
Pace Project No.: 60119875

---

**Method:** EPA 200.8

**Description:** 200.8 MET ICPMS, Dissolved

**Client:** BP Anderson Engineering Company Inc.

**Date:** June 07, 2012

Analyte Comments:

QC Batch: ICPM/32215

E: Analyte concentration exceeded the calibration range. The reported result is estimated.

- MS (Lab ID: 1189312)
  - Manganese, Dissolved
- MSD (Lab ID: 1189313)
  - Calcium, Dissolved
  - Manganese, Dissolved

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## PROJECT NARRATIVE

Project: APRIL 2012 RICO WATER SAMPLING

Pace Project No.: 60119875

---

**Method:** EPA 200.8

**Description:** 200.8 Potentially Diss. Metals

**Client:** BP Anderson Engineering Company Inc.

**Date:** June 07, 2012

### General Information:

28 samples were analyzed for EPA 200.8. All samples were received in acceptable condition with any exceptions noted below.

### Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

### Sample Preparation:

The samples were prepared in accordance with EPA 200.8 with any exceptions noted below.

### Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

### Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

### Internal Standards:

All internal standards were within QC limits with any exceptions noted below.

### Method Blank:

All analytes were below the report limit in the method blank with any exceptions noted below.

### Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

### Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: MPRP/17875

A matrix spike and matrix spike duplicate (MS/MSD) were performed on the following sample(s): 60119875008,60119875014

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 990665)
- Manganese, Dissolved
- Zinc, Dissolved

### Duplicate Sample:

All duplicate sample results were within method acceptance criteria with any exceptions noted below.

### Additional Comments:

## REPORT OF LABORATORY ANALYSIS

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## PROJECT NARRATIVE

Project: APRIL 2012 RICO WATER SAMPLING  
Pace Project No.: 60119875

---

**Method:** EPA 245.1

**Description:** 245.1 Mercury

**Client:** BP Anderson Engineering Company Inc.

**Date:** June 07, 2012

### General Information:

28 samples were analyzed for EPA 245.1. All samples were received in acceptable condition with any exceptions noted below.

### Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

### Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

### Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

### Method Blank:

All analytes were below the report limit in the method blank with any exceptions noted below.

### Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

### Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: MERC/6762

A matrix spike and matrix spike duplicate (MS/MSD) were performed on the following sample(s): 10188362001,60119875019

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 1186080)
- Mercury

QC Batch: MERC/6744

A matrix spike and matrix spike duplicate (MS/MSD) were performed on the following sample(s): 10189779001,60119875020

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 1182916)
- Mercury

### Duplicate Sample:

All duplicate sample results were within method acceptance criteria with any exceptions noted below.

### Additional Comments:

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## PROJECT NARRATIVE

Project: APRIL 2012 RICO WATER SAMPLING  
Pace Project No.: 60119875

---

**Method:** **EPA 245.1**

**Description:** 245.1 Mercury, Dissolved

**Client:** BP Anderson Engineering Company Inc.

**Date:** June 07, 2012

**General Information:**

28 samples were analyzed for EPA 245.1. All samples were received in acceptable condition with any exceptions noted below.

**Hold Time:**

The samples were analyzed within the method required hold times with any exceptions noted below.

**Sample Preparation:**

The samples were prepared in accordance with EPA 245.1 with any exceptions noted below.

**Initial Calibrations (including MS Tune as applicable):**

All criteria were within method requirements with any exceptions noted below.

**Continuing Calibration:**

All criteria were within method requirements with any exceptions noted below.

**Method Blank:**

All analytes were below the report limit in the method blank with any exceptions noted below.

**Laboratory Control Spike:**

All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

**Duplicate Sample:**

All duplicate sample results were within method acceptance criteria with any exceptions noted below.

**Additional Comments:**

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## PROJECT NARRATIVE

Project: APRIL 2012 RICO WATER SAMPLING  
Pace Project No.: 60119875

---

**Method:** **SM 2510B**

**Description:** 2510B Specific Conductance

**Client:** BP Anderson Engineering Company Inc.

**Date:** June 07, 2012

**General Information:**

28 samples were analyzed for SM 2510B. All samples were received in acceptable condition with any exceptions noted below.

**Hold Time:**

The samples were analyzed within the method required hold times with any exceptions noted below.

**Initial Calibrations (including MS Tune as applicable):**

All criteria were within method requirements with any exceptions noted below.

**Continuing Calibration:**

All criteria were within method requirements with any exceptions noted below.

**Internal Standards:**

All internal standards were within QC limits with any exceptions noted below.

**Surrogates:**

All surrogates were within QC limits with any exceptions noted below.

**Method Blank:**

All analytes were below the report limit in the method blank with any exceptions noted below.

**Laboratory Control Spike:**

All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

**Duplicate Sample:**

All duplicate sample results were within method acceptance criteria with any exceptions noted below.

**Additional Comments:**

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## PROJECT NARRATIVE

Project: APRIL 2012 RICO WATER SAMPLING  
Pace Project No.: 60119875

---

**Method:** Calculated

**Description:** Salinity

**Client:** BP Anderson Engineering Company Inc.

**Date:** June 07, 2012

### General Information:

28 samples were analyzed for Calculated. All samples were received in acceptable condition with any exceptions noted below.

### Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

### Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

### Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

### Internal Standards:

All internal standards were within QC limits with any exceptions noted below.

### Surrogates:

All surrogates were within QC limits with any exceptions noted below.

### Method Blank:

All analytes were below the report limit in the method blank with any exceptions noted below.

### Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

### Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

### Duplicate Sample:

All duplicate sample results were within method acceptance criteria with any exceptions noted below.

### Additional Comments:

## REPORT OF LABORATORY ANALYSIS

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## PROJECT NARRATIVE

Project: APRIL 2012 RICO WATER SAMPLING  
Pace Project No.: 60119875

---

**Method:** **SM 2320B**

**Description:** 2320B Alkalinity

**Client:** BP Anderson Engineering Company Inc.

**Date:** June 07, 2012

**General Information:**

28 samples were analyzed for SM 2320B. All samples were received in acceptable condition with any exceptions noted below.

**Hold Time:**

The samples were analyzed within the method required hold times with any exceptions noted below.

**Method Blank:**

All analytes were below the report limit in the method blank with any exceptions noted below.

**Laboratory Control Spike:**

All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

**Duplicate Sample:**

All duplicate sample results were within method acceptance criteria with any exceptions noted below.

**Additional Comments:**

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## PROJECT NARRATIVE

Project: APRIL 2012 RICO WATER SAMPLING  
Pace Project No.: 60119875

---

**Method:** **SM 2540C**

**Description:** 2540C Total Dissolved Solids

**Client:** BP Anderson Engineering Company Inc.

**Date:** June 07, 2012

**General Information:**

28 samples were analyzed for SM 2540C. All samples were received in acceptable condition with any exceptions noted below.

**Hold Time:**

The samples were analyzed within the method required hold times with any exceptions noted below.

**Method Blank:**

All analytes were below the report limit in the method blank with any exceptions noted below.

**Laboratory Control Spike:**

All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

**Duplicate Sample:**

All duplicate sample results were within method acceptance criteria with any exceptions noted below.

**Additional Comments:**

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## PROJECT NARRATIVE

Project: APRIL 2012 RICO WATER SAMPLING  
Pace Project No.: 60119875

---

**Method:** **SM 2540D**

**Description:** 2540D Total Suspended Solids

**Client:** BP Anderson Engineering Company Inc.

**Date:** June 07, 2012

**General Information:**

28 samples were analyzed for SM 2540D. All samples were received in acceptable condition with any exceptions noted below.

**Hold Time:**

The samples were analyzed within the method required hold times with any exceptions noted below.

**Method Blank:**

All analytes were below the report limit in the method blank with any exceptions noted below.

**Laboratory Control Spike:**

All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

**Duplicate Sample:**

All duplicate sample results were within method acceptance criteria with any exceptions noted below.

**Additional Comments:**

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## PROJECT NARRATIVE

Project: APRIL 2012 RICO WATER SAMPLING  
Pace Project No.: 60119875

---

**Method:** **EPA 300.0**

**Description:** 300.0 IC Anions 28 Days

**Client:** BP Anderson Engineering Company Inc.

**Date:** June 07, 2012

### General Information:

28 samples were analyzed for EPA 300.0. All samples were received in acceptable condition with any exceptions noted below.

### Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

### Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

### Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

### Method Blank:

All analytes were below the report limit in the method blank with any exceptions noted below.

### Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

### Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

### Duplicate Sample:

All duplicate sample results were within method acceptance criteria with any exceptions noted below.

### Additional Comments:

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## PROJECT NARRATIVE

Project: APRIL 2012 RICO WATER SAMPLING  
Pace Project No.: 60119875

---

**Method:** **SM 4500-CN-E**

**Description:** 4500CNE Cyanide, Total

**Client:** BP Anderson Engineering Company Inc.

**Date:** June 07, 2012

### General Information:

28 samples were analyzed for SM 4500-CN-E. All samples were received in acceptable condition with any exceptions noted below.

### Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

### Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

### Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

### Method Blank:

All analytes were below the report limit in the method blank with any exceptions noted below.

### Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

### Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

### Duplicate Sample:

All duplicate sample results were within method acceptance criteria with any exceptions noted below.

### Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: APRIL 2012 RICO WATER SAMPLING

Pace Project No.: 60119875

Sample: DR-1	Lab ID: 60119875001	Collected: 04/18/12 09:00	Received: 04/21/12 08:40	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.7 Potentially Diss. Metals</b>	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7							
Calcium, Dissolved	<b>27600</b> ug/L		100	1	05/01/12 13:00	05/01/12 19:42	7440-70-2	
Magnesium, Dissolved	<b>4290</b> ug/L		50.0	1	05/01/12 13:00	05/01/12 19:42	7439-95-4	
Potassium, Dissolved	<b>489J</b> ug/L		500	1	05/01/12 13:00	05/01/12 19:42	7440-09-7	
Sodium, Dissolved	<b>2060</b> ug/L		500	1	05/01/12 13:00	05/01/12 19:42	7440-23-5	
<b>200.8 MET ICPMS</b>	Analytical Method: EPA 200.8							
Aluminum	<b>274</b> ug/L		4.0	1	05/01/12 06:08	05/04/12 12:37	7429-90-5	M1
Antimony	ND ug/L		0.50	1	05/01/12 06:08	05/04/12 12:37	7440-36-0	
Arsenic	ND ug/L		0.50	1	05/01/12 06:08	05/04/12 12:37	7440-38-2	
Barium	<b>50.7</b> ug/L		0.30	1	05/01/12 06:08	05/04/12 12:37	7440-39-3	
Beryllium	ND ug/L		0.20	1	05/01/12 06:08	05/04/12 12:37	7440-41-7	
Cadmium	ND ug/L		0.080	1	05/01/12 06:08	05/04/12 12:37	7440-43-9	
Calcium	<b>27600</b> ug/L		100	5	05/01/12 06:08	05/03/12 16:59	7440-70-2	
Chromium	<b>0.89</b> ug/L		0.50	1	05/01/12 06:08	05/04/12 12:37	7440-47-3	
Copper	<b>1.0</b> ug/L		0.50	1	05/01/12 06:08	05/04/12 12:37	7440-50-8	
Iron	<b>253</b> ug/L		50.0	1	05/01/12 06:08	05/04/12 12:37	7439-89-6	M1
Lead	<b>0.38</b> ug/L		0.10	1	05/01/12 06:08	05/04/12 12:37	7439-92-1	
Magnesium	<b>4180</b> ug/L		5.0	1	05/01/12 06:08	05/04/12 12:37	7439-95-4	
Manganese	<b>14.4</b> ug/L		0.50	1	05/01/12 06:08	05/04/12 12:37	7439-96-5	
Nickel	<b>0.59</b> ug/L		0.50	1	05/01/12 06:08	05/04/12 12:37	7440-02-0	
Potassium	<b>608</b> ug/L		20.0	1	05/01/12 06:08	05/04/12 12:37	7440-09-7	
Selenium	ND ug/L		0.50	1	05/01/12 06:08	05/04/12 12:37	7782-49-2	
Silver	ND ug/L		0.50	1	05/01/12 06:08	05/04/12 12:37	7440-22-4	
Sodium	<b>2090</b> ug/L		50.0	1	05/01/12 06:08	05/04/12 12:37	7440-23-5	
Thallium	ND ug/L		0.10	1	05/01/12 06:08	05/04/12 12:37	7440-28-0	
Total Hardness by 2340B	<b>86100</b> ug/L		355	5	05/01/12 06:08	05/03/12 16:59		
Vanadium	<b>0.55</b> ug/L		0.10	1	05/01/12 06:08	05/04/12 12:37	7440-62-2	
Zinc	<b>5.4</b> ug/L		5.0	1	05/01/12 06:08	05/04/12 12:37	7440-66-6	
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8							
Aluminum, Dissolved	<b>105</b> ug/L		4.0	1	05/09/12 09:32	05/14/12 14:08	7429-90-5	M1
Antimony, Dissolved	ND ug/L		0.50	1	05/09/12 09:32	05/14/12 14:08	7440-36-0	
Arsenic, Dissolved	ND ug/L		0.50	1	05/09/12 09:32	05/14/12 14:08	7440-38-2	
Barium, Dissolved	<b>47.8</b> ug/L		0.30	1	05/09/12 09:32	05/14/12 14:08	7440-39-3	
Beryllium, Dissolved	ND ug/L		0.20	1	05/09/12 09:32	05/14/12 14:08	7440-41-7	
Cadmium, Dissolved	ND ug/L		0.080	1	05/09/12 09:32	05/14/12 14:08	7440-43-9	
Calcium, Dissolved	<b>25200</b> ug/L		100	5	05/09/12 09:32	05/14/12 14:11	7440-70-2	M1
Chromium, Dissolved	<b>1.5</b> ug/L		0.50	1	05/09/12 09:32	05/14/12 14:08	7440-47-3	
Copper, Dissolved	<b>1.0</b> ug/L		0.50	1	05/09/12 09:32	05/14/12 14:08	7440-50-8	
Iron, Dissolved	<b>89.4</b> ug/L		50.0	1	05/09/12 09:32	05/14/12 14:08	7439-89-6	
Lead, Dissolved	<b>0.16</b> ug/L		0.10	1	05/09/12 09:32	05/14/12 14:08	7439-92-1	
Magnesium, Dissolved	<b>4070</b> ug/L		5.0	1	05/09/12 09:32	05/14/12 14:08	7439-95-4	
Manganese, Dissolved	<b>8.6</b> ug/L		0.50	1	05/09/12 09:32	05/15/12 20:48	7439-96-5	B
Nickel, Dissolved	<b>0.91</b> ug/L		0.50	1	05/09/12 09:32	05/14/12 14:08	7440-02-0	
Potassium, Dissolved	<b>562</b> ug/L		20.0	1	05/09/12 09:32	05/14/12 14:08	7440-09-7	
Selenium, Dissolved	ND ug/L		0.50	1	05/09/12 09:32	05/14/12 14:08	7782-49-2	

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## ANALYTICAL RESULTS

Project: APRIL 2012 RICO WATER SAMPLING

Pace Project No.: 60119875

Sample: DR-1	Lab ID: 60119875001	Collected: 04/18/12 09:00	Received: 04/21/12 08:40	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8							
Silver, Dissolved	<b>0.96</b> ug/L		0.50	1	05/09/12 09:32	05/14/12 14:08	7440-22-4	
Sodium, Dissolved	<b>2120</b> ug/L		50.0	1	05/09/12 09:32	05/14/12 14:08	7440-23-5	
Thallium, Dissolved	ND ug/L		0.10	1	05/09/12 09:32	05/14/12 14:08	7440-28-0	
Vanadium, Dissolved	<b>0.29</b> ug/L		0.10	1	05/09/12 09:32	05/14/12 14:08	7440-62-2	
Zinc, Dissolved	ND ug/L		5.0	1	05/09/12 09:32	05/14/12 14:08	7440-66-6	
<b>200.8 Potentially Diss. Metals</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum, Dissolved	<b>34.6J</b> ug/L		50.0	1	05/01/12 13:00	05/02/12 16:47	7429-90-5	
Antimony, Dissolved	<b>0.17J</b> ug/L		1.0	1	05/01/12 13:00	05/11/12 17:45	7440-36-0	
Arsenic, Dissolved	<b>0.54J</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 13:31	7440-38-2	
Barium, Dissolved	<b>48.8</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 13:31	7440-39-3	
Beryllium, Dissolved	ND ug/L		0.50	1	05/01/12 13:00	05/02/12 16:47	7440-41-7	
Cadmium, Dissolved	ND ug/L		0.50	1	05/01/12 13:00	05/02/12 13:31	7440-43-9	
Chromium, Dissolved	<b>1.4</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 13:31	7440-47-3	
Copper, Dissolved	<b>2.6</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 13:31	7440-50-8	
Iron, Dissolved	<b>81.8</b> ug/L		50.0	1	05/01/12 13:00	05/02/12 13:31	7439-89-6	
Lead, Dissolved	<b>16.3</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 13:31	7439-92-1	
Manganese, Dissolved	<b>28.0</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 13:31	7439-96-5	
Nickel, Dissolved	<b>3.1</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 13:31	7440-02-0	
Selenium, Dissolved	ND ug/L		1.0	1	05/01/12 13:00	05/02/12 13:31	7782-49-2	
Silver, Dissolved	ND ug/L		0.50	1	05/01/12 13:00	05/02/12 13:31	7440-22-4	
Thallium, Dissolved	<b>0.038J</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 13:31	7440-28-0	
Vanadium, Dissolved	ND ug/L		1.0	1	05/01/12 13:00	05/02/12 13:31	7440-62-2	
Zinc, Dissolved	<b>30.8</b> ug/L		10.0	1	05/01/12 13:00	05/02/12 13:31	7440-66-6	
<b>245.1 Mercury</b>	Analytical Method: EPA 245.1							
Mercury	ND ug/L		0.20	1	04/30/12 00:00	05/03/12 13:49	7439-97-6	
<b>245.1 Mercury, Dissolved</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury, Dissolved	ND ug/L		0.20	1	05/15/12 10:45	05/15/12 14:13	7439-97-6	
<b>2510B Specific Conductance</b>	Analytical Method: SM 2510B							
Specific Conductance	<b>173</b> umhos/cm		10.0	1			04/30/12 17:29	
<b>Salinity</b>	Analytical Method: Calculated							
Salinity (as dissolved solids)	<b>111</b> mg/L		6.0	1			05/02/12 09:41	
Salinity (as seawater)	<b>0.085</b> PSU		0.010	1			05/02/12 09:41	
<b>2320B Alkalinity</b>	Analytical Method: SM 2320B							
Alkalinity,Bicarbonate (CaCO3)	<b>72.0</b> mg/L		20.0	1			04/30/12 09:30	
Alkalinity, Carbonate (CaCO3)	ND mg/L		20.0	1			04/30/12 09:30	
Alkalinity, Total as CaCO3	ND mg/L		20.0	1			04/30/12 09:30	
<b>2540C Total Dissolved Solids</b>	Analytical Method: SM 2540C							
Total Dissolved Solids	<b>118</b> mg/L		5.0	1			04/24/12 11:40	

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## ANALYTICAL RESULTS

Project: APRIL 2012 RICO WATER SAMPLING  
Pace Project No.: 60119875

Sample: DR-1	Lab ID: 60119875001	Collected: 04/18/12 09:00	Received: 04/21/12 08:40	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>2540D Total Suspended Solids</b>	Analytical Method: SM 2540D							
Total Suspended Solids	7.0	mg/L	5.0	1		04/24/12 08:26		
<b>300.0 IC Anions 28 Days</b>	Analytical Method: EPA 300.0							
Sulfate	15.9	mg/L	5.0	5		04/27/12 16:30	14808-79-8	
<b>4500CNE Cyanide, Total</b>	Analytical Method: SM 4500-CN-E							
Cyanide	ND	mg/L	0.0050	1		04/27/12 21:59	57-12-5	

## ANALYTICAL RESULTS

Project: APRIL 2012 RICO WATER SAMPLING

Pace Project No.: 60119875

Sample: DR-2	Lab ID: 60119875002	Collected: 04/18/12 11:10	Received: 04/21/12 08:40	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.7 Potentially Diss. Metals</b>	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7							
Calcium, Dissolved	<b>30500</b> ug/L		100	1	05/01/12 13:00	05/01/12 19:46	7440-70-2	
Magnesium, Dissolved	<b>4520</b> ug/L		50.0	1	05/01/12 13:00	05/01/12 19:46	7439-95-4	
Potassium, Dissolved	<b>534</b> ug/L		500	1	05/01/12 13:00	05/01/12 19:46	7440-09-7	
Sodium, Dissolved	<b>2130</b> ug/L		500	1	05/01/12 13:00	05/01/12 19:46	7440-23-5	
<b>200.8 MET ICPMS</b>	Analytical Method: EPA 200.8							
Aluminum	<b>453</b> ug/L		4.0	1	05/01/12 06:08	05/03/12 17:03	7429-90-5	
Antimony	ND ug/L		0.50	1	05/01/12 06:08	05/03/12 17:03	7440-36-0	
Arsenic	ND ug/L		0.50	1	05/01/12 06:08	05/03/12 17:03	7440-38-2	
Barium	<b>51.7</b> ug/L		0.30	1	05/01/12 06:08	05/03/12 17:03	7440-39-3	
Beryllium	ND ug/L		0.20	1	05/01/12 06:08	05/03/12 17:03	7440-41-7	
Cadmium	ND ug/L		0.080	1	05/01/12 06:08	05/03/12 17:03	7440-43-9	
Calcium	<b>31100</b> ug/L		100	5	05/01/12 06:08	05/03/12 17:08	7440-70-2	
Chromium	<b>0.73</b> ug/L		0.50	1	05/01/12 06:08	05/03/12 17:03	7440-47-3	
Copper	<b>1.0</b> ug/L		0.50	1	05/01/12 06:08	05/03/12 17:03	7440-50-8	
Iron	<b>324</b> ug/L		50.0	1	05/01/12 06:08	05/03/12 17:03	7439-89-6	
Lead	<b>0.51</b> ug/L		0.10	1	05/01/12 06:08	05/03/12 17:03	7439-92-1	
Magnesium	<b>4820</b> ug/L		5.0	1	05/01/12 06:08	05/03/12 17:03	7439-95-4	
Manganese	<b>43.4</b> ug/L		0.50	1	05/01/12 06:08	05/03/12 17:03	7439-96-5	
Nickel	<b>0.65</b> ug/L		0.50	1	05/01/12 06:08	05/03/12 17:03	7440-02-0	
Potassium	<b>666</b> ug/L		20.0	1	05/01/12 06:08	05/03/12 17:03	7440-09-7	
Selenium	ND ug/L		0.50	1	05/01/12 06:08	05/03/12 17:03	7782-49-2	
Silver	ND ug/L		0.50	1	05/01/12 06:08	05/03/12 17:03	7440-22-4	
Sodium	<b>2340</b> ug/L		50.0	1	05/01/12 06:08	05/03/12 17:03	7440-23-5	
Thallium	ND ug/L		0.10	1	05/01/12 06:08	05/03/12 17:03	7440-28-0	
Total Hardness by 2340B	<b>97500</b> ug/L		355	5	05/01/12 06:08	05/03/12 17:08		
Vanadium	<b>0.80</b> ug/L		0.10	1	05/01/12 06:08	05/03/12 17:03	7440-62-2	
Zinc	<b>8.0</b> ug/L		5.0	1	05/01/12 06:08	05/03/12 17:03	7440-66-6	
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8							
Aluminum, Dissolved	<b>101</b> ug/L		4.0	1	05/09/12 09:32	05/14/12 14:42	7429-90-5	
Antimony, Dissolved	ND ug/L		0.50	1	05/09/12 09:32	05/14/12 14:42	7440-36-0	
Arsenic, Dissolved	ND ug/L		0.50	1	05/09/12 09:32	05/14/12 14:42	7440-38-2	
Barium, Dissolved	<b>49.1</b> ug/L		0.30	1	05/09/12 09:32	05/14/12 14:42	7440-39-3	
Beryllium, Dissolved	ND ug/L		0.20	1	05/09/12 09:32	05/14/12 14:42	7440-41-7	
Cadmium, Dissolved	ND ug/L		0.080	1	05/09/12 09:32	05/14/12 14:42	7440-43-9	
Calcium, Dissolved	<b>29200</b> ug/L		100	5	05/09/12 09:32	05/14/12 14:46	7440-70-2	
Chromium, Dissolved	<b>1.5</b> ug/L		0.50	1	05/09/12 09:32	05/14/12 14:42	7440-47-3	
Copper, Dissolved	<b>0.89</b> ug/L		0.50	1	05/09/12 09:32	05/14/12 14:42	7440-50-8	
Iron, Dissolved	<b>86.7</b> ug/L		50.0	1	05/09/12 09:32	05/14/12 14:42	7439-89-6	
Lead, Dissolved	<b>0.15</b> ug/L		0.10	1	05/09/12 09:32	05/14/12 14:42	7439-92-1	
Magnesium, Dissolved	<b>4320</b> ug/L		5.0	1	05/09/12 09:32	05/14/12 14:42	7439-95-4	
Manganese, Dissolved	<b>33.3</b> ug/L		0.50	1	05/09/12 09:32	05/15/12 21:02	7439-96-5	B
Nickel, Dissolved	<b>0.86</b> ug/L		0.50	1	05/09/12 09:32	05/14/12 14:42	7440-02-0	
Potassium, Dissolved	<b>598</b> ug/L		20.0	1	05/09/12 09:32	05/14/12 14:42	7440-09-7	
Selenium, Dissolved	ND ug/L		0.50	1	05/09/12 09:32	05/14/12 14:42	7782-49-2	

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## ANALYTICAL RESULTS

Project: APRIL 2012 RICO WATER SAMPLING

Pace Project No.: 60119875

Sample: DR-2	Lab ID: 60119875002	Collected: 04/18/12 11:10	Received: 04/21/12 08:40	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8							
Silver, Dissolved	ND ug/L		0.50	1	05/09/12 09:32	05/14/12 14:42	7440-22-4	
Sodium, Dissolved	<b>2220</b> ug/L		50.0	1	05/09/12 09:32	05/14/12 14:42	7440-23-5	
Thallium, Dissolved	ND ug/L		0.10	1	05/09/12 09:32	05/14/12 14:42	7440-28-0	
Vanadium, Dissolved	<b>0.28</b> ug/L		0.10	1	05/09/12 09:32	05/14/12 14:42	7440-62-2	
Zinc, Dissolved	<b>8.1</b> ug/L		5.0	1	05/09/12 09:32	05/14/12 14:42	7440-66-6	
<b>200.8 Potentially Diss. Metals</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum, Dissolved	<b>38.4J</b> ug/L		50.0	1	05/01/12 13:00	05/02/12 16:49	7429-90-5	
Antimony, Dissolved	<b>0.13J</b> ug/L		1.0	1	05/01/12 13:00	05/11/12 17:48	7440-36-0	
Arsenic, Dissolved	<b>0.60J</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 13:35	7440-38-2	
Barium, Dissolved	<b>49.2</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 13:35	7440-39-3	
Beryllium, Dissolved	ND ug/L		0.50	1	05/01/12 13:00	05/02/12 16:49	7440-41-7	
Cadmium, Dissolved	<b>0.16J</b> ug/L		0.50	1	05/01/12 13:00	05/02/12 13:35	7440-43-9	
Chromium, Dissolved	<b>1.3</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 13:35	7440-47-3	
Copper, Dissolved	<b>8.0</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 13:35	7440-50-8	
Iron, Dissolved	<b>71.0</b> ug/L		50.0	1	05/01/12 13:00	05/02/12 13:35	7439-89-6	
Lead, Dissolved	<b>47.2</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 13:35	7439-92-1	
Manganese, Dissolved	<b>46.2</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 13:35	7439-96-5	
Nickel, Dissolved	<b>7.4</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 13:35	7440-02-0	
Selenium, Dissolved	ND ug/L		1.0	1	05/01/12 13:00	05/02/12 13:35	7782-49-2	
Silver, Dissolved	ND ug/L		0.50	1	05/01/12 13:00	05/02/12 13:35	7440-22-4	
Thallium, Dissolved	ND ug/L		1.0	1	05/01/12 13:00	05/02/12 13:35	7440-28-0	
Vanadium, Dissolved	ND ug/L		1.0	1	05/01/12 13:00	05/02/12 13:35	7440-62-2	
Zinc, Dissolved	<b>103</b> ug/L		10.0	1	05/01/12 13:00	05/02/12 13:35	7440-66-6	
<b>245.1 Mercury</b>	Analytical Method: EPA 245.1							
Mercury	ND ug/L		0.20	1	04/30/12 00:00	05/03/12 13:51	7439-97-6	
<b>245.1 Mercury, Dissolved</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury, Dissolved	ND ug/L		0.20	1	05/15/12 10:45	05/15/12 14:18	7439-97-6	
<b>2510B Specific Conductance</b>	Analytical Method: SM 2510B							
Specific Conductance	<b>195</b> umhos/cm		10.0	1			04/30/12 17:30	
<b>Salinity</b>	Analytical Method: Calculated							
Salinity (as dissolved solids)	<b>125</b> mg/L		6.0	1			05/02/12 09:41	
Salinity (as seawater)	<b>0.095</b> PSU		0.010	1			05/02/12 09:41	
<b>2320B Alkalinity</b>	Analytical Method: SM 2320B							
Alkalinity,Bicarbonate (CaCO3)	<b>74.0</b> mg/L		20.0	1			04/30/12 09:30	
Alkalinity, Carbonate (CaCO3)	ND mg/L		20.0	1			04/30/12 09:30	
Alkalinity, Total as CaCO3	ND mg/L		20.0	1			04/30/12 09:30	
<b>2540C Total Dissolved Solids</b>	Analytical Method: SM 2540C							
Total Dissolved Solids	<b>130</b> mg/L		5.0	1			04/24/12 11:40	

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## ANALYTICAL RESULTS

Project: APRIL 2012 RICO WATER SAMPLING  
Pace Project No.: 60119875

Sample: DR-2	Lab ID: 60119875002	Collected: 04/18/12 11:10	Received: 04/21/12 08:40	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>2540D Total Suspended Solids</b>	Analytical Method: SM 2540D							
Total Suspended Solids	7.0	mg/L	5.0	1		04/24/12 08:26		
<b>300.0 IC Anions 28 Days</b>	Analytical Method: EPA 300.0							
Sulfate	23.1	mg/L	5.0	5		04/27/12 17:21	14808-79-8	
<b>4500CNE Cyanide, Total</b>	Analytical Method: SM 4500-CN-E							
Cyanide	ND	mg/L	0.0050	1		04/27/12 22:00	57-12-5	

## ANALYTICAL RESULTS

Project: APRIL 2012 RICO WATER SAMPLING

Pace Project No.: 60119875

Sample: DR-3	Lab ID: 60119875003	Collected: 04/18/12 09:30	Received: 04/21/12 08:40	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.7 Potentially Diss. Metals</b>	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7							
Calcium, Dissolved	<b>250000</b> ug/L		100	1	05/01/12 13:00	05/01/12 19:50	7440-70-2	
Magnesium, Dissolved	<b>19800</b> ug/L		50.0	1	05/01/12 13:00	05/01/12 19:50	7439-95-4	
Potassium, Dissolved	<b>1610</b> ug/L		500	1	05/01/12 13:00	05/01/12 19:50	7440-09-7	
Sodium, Dissolved	<b>11000</b> ug/L		500	1	05/01/12 13:00	05/01/12 19:50	7440-23-5	
<b>200.8 MET ICPMS</b>	Analytical Method: EPA 200.8							
Aluminum	<b>910</b> ug/L		4.0	1	05/01/12 06:08	05/03/12 17:13	7429-90-5	
Antimony	ND ug/L		0.50	1	05/01/12 06:08	05/03/12 17:13	7440-36-0	
Arsenic	<b>1.6</b> ug/L		0.50	1	05/01/12 06:08	05/03/12 17:13	7440-38-2	
Barium	<b>21.9</b> ug/L		0.30	1	05/01/12 06:08	05/03/12 17:13	7440-39-3	
Beryllium	<b>1.2</b> ug/L		0.20	1	05/01/12 06:08	05/03/12 17:13	7440-41-7	
Cadmium	<b>18.4</b> ug/L		0.080	1	05/01/12 06:08	05/03/12 17:13	7440-43-9	
Calcium	<b>239000</b> ug/L		400	20	05/01/12 06:08	05/03/12 17:17	7440-70-2	
Chromium	<b>1.0</b> ug/L		0.50	1	05/01/12 06:08	05/03/12 17:13	7440-47-3	
Copper	<b>150</b> ug/L		0.50	1	05/01/12 06:08	05/03/12 17:13	7440-50-8	
Iron	<b>9620</b> ug/L		50.0	1	05/01/12 06:08	05/03/12 17:13	7439-89-6	
Lead	<b>15.5</b> ug/L		0.10	1	05/01/12 06:08	05/03/12 17:13	7439-92-1	
Magnesium	<b>20500</b> ug/L		5.0	1	05/01/12 06:08	05/03/12 17:13	7439-95-4	
Manganese	<b>1980</b> ug/L		10.0	20	05/01/12 06:08	05/03/12 17:17	7439-96-5	
Nickel	<b>4.7</b> ug/L		0.50	1	05/01/12 06:08	05/03/12 17:13	7440-02-0	
Potassium	<b>1680</b> ug/L		20.0	1	05/01/12 06:08	05/03/12 17:13	7440-09-7	
Selenium	ND ug/L		0.50	1	05/01/12 06:08	05/03/12 17:13	7782-49-2	
Silver	ND ug/L		0.50	1	05/01/12 06:08	05/03/12 17:13	7440-22-4	
Sodium	<b>12000</b> ug/L		50.0	1	05/01/12 06:08	05/03/12 17:13	7440-23-5	
Thallium	ND ug/L		0.10	1	05/01/12 06:08	05/03/12 17:13	7440-28-0	
Total Hardness by 2340B	<b>680000</b> ug/L		1420	20	05/01/12 06:08	05/03/12 17:17		
Vanadium	<b>0.30</b> ug/L		0.10	1	05/01/12 06:08	05/03/12 17:13	7440-62-2	
Zinc	<b>3680</b> ug/L		100	20	05/01/12 06:08	05/03/12 17:17	7440-66-6	
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8							
Aluminum, Dissolved	<b>12.6</b> ug/L		4.0	1	05/09/12 09:32	05/14/12 14:52	7429-90-5	
Antimony, Dissolved	ND ug/L		0.50	1	05/09/12 09:32	05/14/12 14:52	7440-36-0	
Arsenic, Dissolved	ND ug/L		0.50	1	05/09/12 09:32	05/14/12 14:52	7440-38-2	
Barium, Dissolved	<b>24.1</b> ug/L		0.30	1	05/09/12 09:32	05/14/12 14:52	7440-39-3	
Beryllium, Dissolved	ND ug/L		0.20	1	05/09/12 09:32	05/14/12 14:52	7440-41-7	
Cadmium, Dissolved	<b>13.2</b> ug/L		0.080	1	05/09/12 09:32	05/14/12 14:52	7440-43-9	
Calcium, Dissolved	<b>245000</b> ug/L		500	25	05/09/12 09:32	05/14/12 14:59	7440-70-2	
Chromium, Dissolved	<b>0.96</b> ug/L		0.50	1	05/09/12 09:32	05/14/12 14:52	7440-47-3	
Copper, Dissolved	<b>2.7</b> ug/L		0.50	1	05/09/12 09:32	05/14/12 14:52	7440-50-8	
Iron, Dissolved	ND ug/L		50.0	1	05/09/12 09:32	05/14/12 14:52	7439-89-6	
Lead, Dissolved	ND ug/L		0.10	1	05/09/12 09:32	05/14/12 14:52	7439-92-1	
Magnesium, Dissolved	<b>19000</b> ug/L		5.0	1	05/09/12 09:32	05/14/12 14:52	7439-95-4	
Manganese, Dissolved	<b>1950</b> ug/L		2.5	5	05/09/12 09:32	05/14/12 14:56	7439-96-5	B
Nickel, Dissolved	<b>5.0</b> ug/L		0.50	1	05/09/12 09:32	05/14/12 14:52	7440-02-0	
Potassium, Dissolved	<b>1730</b> ug/L		20.0	1	05/09/12 09:32	05/14/12 14:52	7440-09-7	
Selenium, Dissolved	ND ug/L		0.50	1	05/09/12 09:32	05/14/12 14:52	7782-49-2	

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## ANALYTICAL RESULTS

Project: APRIL 2012 RICO WATER SAMPLING

Pace Project No.: 60119875

Sample: DR-3	Lab ID: 60119875003	Collected: 04/18/12 09:30	Received: 04/21/12 08:40	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8							
Silver, Dissolved	ND ug/L		0.50	1	05/09/12 09:32	05/14/12 14:52	7440-22-4	
Sodium, Dissolved	<b>11300</b> ug/L		50.0	1	05/09/12 09:32	05/14/12 14:52	7440-23-5	
Thallium, Dissolved	ND ug/L		0.10	1	05/09/12 09:32	05/14/12 14:52	7440-28-0	
Vanadium, Dissolved	ND ug/L		0.10	1	05/09/12 09:32	05/14/12 14:52	7440-62-2	
Zinc, Dissolved	<b>2880</b> ug/L		125	25	05/09/12 09:32	05/14/12 14:59	7440-66-6	
<b>200.8 Potentially Diss. Metals</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum, Dissolved	<b>17.4J</b> ug/L		50.0	1	05/01/12 13:00	05/02/12 16:52	7429-90-5	
Antimony, Dissolved	<b>0.28J</b> ug/L		1.0	1	05/01/12 13:00	05/11/12 17:51	7440-36-0	
Arsenic, Dissolved	<b>0.47J</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 13:39	7440-38-2	
Barium, Dissolved	<b>19.9</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 13:39	7440-39-3	
Beryllium, Dissolved	<b>0.33J</b> ug/L		0.50	1	05/01/12 13:00	05/02/12 16:52	7440-41-7	
Cadmium, Dissolved	<b>16.4</b> ug/L		0.50	1	05/01/12 13:00	05/02/12 13:39	7440-43-9	
Chromium, Dissolved	<b>0.98J</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 13:39	7440-47-3	
Copper, Dissolved	<b>7.6</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 13:39	7440-50-8	
Iron, Dissolved	<b>1070</b> ug/L		50.0	1	05/01/12 13:00	05/02/12 13:39	7439-89-6	
Lead, Dissolved	<b>15.2</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 13:39	7439-92-1	
Manganese, Dissolved	<b>2010</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 13:39	7439-96-5	
Nickel, Dissolved	<b>4.8</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 13:39	7440-02-0	
Selenium, Dissolved	ND ug/L		1.0	1	05/01/12 13:00	05/02/12 13:39	7782-49-2	
Silver, Dissolved	ND ug/L		0.50	1	05/01/12 13:00	05/02/12 13:39	7440-22-4	
Thallium, Dissolved	<b>0.064J</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 13:39	7440-28-0	
Vanadium, Dissolved	ND ug/L		1.0	1	05/01/12 13:00	05/02/12 13:39	7440-62-2	
Zinc, Dissolved	<b>3330</b> ug/L		10.0	1	05/01/12 13:00	05/02/12 13:39	7440-66-6	
<b>245.1 Mercury</b>	Analytical Method: EPA 245.1							
Mercury	ND ug/L		0.20	1	04/30/12 00:00	05/03/12 13:57	7439-97-6	
<b>245.1 Mercury, Dissolved</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury, Dissolved	ND ug/L		0.20	1	05/15/12 10:45	05/15/12 14:20	7439-97-6	
<b>2510B Specific Conductance</b>	Analytical Method: SM 2510B							
Specific Conductance	<b>1200</b> umhos/cm		10.0	1			04/30/12 17:36	
<b>Salinity</b>	Analytical Method: Calculated							
Salinity (as dissolved solids)	<b>766</b> mg/L		6.0	1			05/02/12 09:41	
Salinity (as seawater)	<b>0.59</b> PSU		0.010	1			05/02/12 09:41	
<b>2320B Alkalinity</b>	Analytical Method: SM 2320B							
Alkalinity,Bicarbonate (CaCO3)	<b>102</b> mg/L		20.0	1			04/30/12 09:30	
Alkalinity, Carbonate (CaCO3)	ND mg/L		20.0	1			04/30/12 09:30	
Alkalinity, Total as CaCO3	ND mg/L		20.0	1			04/30/12 09:30	
<b>2540C Total Dissolved Solids</b>	Analytical Method: SM 2540C							
Total Dissolved Solids	<b>1050</b> mg/L		5.0	1			04/24/12 11:40	

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## ANALYTICAL RESULTS

Project: APRIL 2012 RICO WATER SAMPLING

Pace Project No.: 60119875

Sample: DR-3	Lab ID: 60119875003	Collected: 04/18/12 09:30	Received: 04/21/12 08:40	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>2540D Total Suspended Solids</b>	Analytical Method: SM 2540D							
Total Suspended Solids	<b>28.0</b>	mg/L	5.0	1		04/24/12 08:26		
<b>300.0 IC Anions 28 Days</b>	Analytical Method: EPA 300.0							
Sulfate	<b>584</b>	mg/L	50.0	50		04/27/12 17:38	14808-79-8	
<b>4500CNE Cyanide, Total</b>	Analytical Method: SM 4500-CN-E							
Cyanide	ND	mg/L	0.0050	1		04/27/12 22:01	57-12-5	

## ANALYTICAL RESULTS

Project: APRIL 2012 RICO WATER SAMPLING

Pace Project No.: 60119875

Sample: DR-4	Lab ID: 60119875004	Collected: 04/18/12 10:10	Received: 04/21/12 08:40	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.7 Potentially Diss. Metals</b>	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7							
Calcium, Dissolved	<b>241000</b> ug/L		100	1	05/01/12 13:00	05/01/12 20:00	7440-70-2	
Magnesium, Dissolved	<b>19200</b> ug/L		50.0	1	05/01/12 13:00	05/01/12 20:00	7439-95-4	
Potassium, Dissolved	<b>1550</b> ug/L		500	1	05/01/12 13:00	05/01/12 20:00	7440-09-7	
Sodium, Dissolved	<b>10600</b> ug/L		500	1	05/01/12 13:00	05/01/12 20:00	7440-23-5	
<b>200.8 MET ICPMS</b>	Analytical Method: EPA 200.8							
Aluminum	<b>357</b> ug/L		4.0	1	05/01/12 06:08	05/03/12 17:31	7429-90-5	
Antimony	ND ug/L		0.50	1	05/01/12 06:08	05/03/12 17:31	7440-36-0	
Arsenic	<b>0.61</b> ug/L		0.50	1	05/01/12 06:08	05/03/12 17:31	7440-38-2	
Barium	<b>20.1</b> ug/L		0.30	1	05/01/12 06:08	05/03/12 17:31	7440-39-3	
Beryllium	<b>0.70</b> ug/L		0.20	1	05/01/12 06:08	05/03/12 17:31	7440-41-7	
Cadmium	<b>15.5</b> ug/L		0.080	1	05/01/12 06:08	05/03/12 17:31	7440-43-9	
Calcium	<b>242000</b> ug/L		400	20	05/01/12 06:08	05/03/12 17:36	7440-70-2	
Chromium	ND ug/L		0.50	1	05/01/12 06:08	05/03/12 17:31	7440-47-3	
Copper	<b>64.8</b> ug/L		0.50	1	05/01/12 06:08	05/03/12 17:31	7440-50-8	
Iron	<b>4060</b> ug/L		50.0	1	05/01/12 06:08	05/03/12 17:31	7439-89-6	
Lead	<b>4.9</b> ug/L		0.10	1	05/01/12 06:08	05/03/12 17:31	7439-92-1	
Magnesium	<b>20600</b> ug/L		5.0	1	05/01/12 06:08	05/03/12 17:31	7439-95-4	
Manganese	<b>1870</b> ug/L		10.0	20	05/01/12 06:08	05/03/12 17:36	7439-96-5	
Nickel	<b>4.3</b> ug/L		0.50	1	05/01/12 06:08	05/03/12 17:31	7440-02-0	
Potassium	<b>1670</b> ug/L		20.0	1	05/01/12 06:08	05/03/12 17:31	7440-09-7	
Selenium	ND ug/L		0.50	1	05/01/12 06:08	05/03/12 17:31	7782-49-2	
Silver	ND ug/L		0.50	1	05/01/12 06:08	05/03/12 17:31	7440-22-4	
Sodium	<b>11800</b> ug/L		50.0	1	05/01/12 06:08	05/03/12 17:31	7440-23-5	
Thallium	ND ug/L		0.10	1	05/01/12 06:08	05/03/12 17:31	7440-28-0	
Total Hardness by 2340B	<b>688000</b> ug/L		1420	20	05/01/12 06:08	05/03/12 17:36		
Vanadium	ND ug/L		0.10	1	05/01/12 06:08	05/03/12 17:31	7440-62-2	
Zinc	<b>3040</b> ug/L		100	20	05/01/12 06:08	05/03/12 17:36	7440-66-6	
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8							
Aluminum, Dissolved	<b>6.6</b> ug/L		4.0	1	05/09/12 09:32	05/15/12 21:05	7429-90-5	
Antimony, Dissolved	ND ug/L		0.50	1	05/09/12 09:32	05/14/12 15:03	7440-36-0	
Arsenic, Dissolved	ND ug/L		0.50	1	05/09/12 09:32	05/14/12 15:03	7440-38-2	
Barium, Dissolved	<b>22.0</b> ug/L		0.30	1	05/09/12 09:32	05/14/12 15:03	7440-39-3	
Beryllium, Dissolved	ND ug/L		0.20	1	05/09/12 09:32	05/14/12 15:03	7440-41-7	
Cadmium, Dissolved	<b>11.8</b> ug/L		0.080	1	05/09/12 09:32	05/14/12 15:03	7440-43-9	
Calcium, Dissolved	<b>243000</b> ug/L		500	25	05/09/12 09:32	05/14/12 15:09	7440-70-2	
Chromium, Dissolved	<b>0.94</b> ug/L		0.50	1	05/09/12 09:32	05/15/12 21:05	7440-47-3	
Copper, Dissolved	<b>1.9</b> ug/L		0.50	1	05/09/12 09:32	05/14/12 15:03	7440-50-8	
Iron, Dissolved	ND ug/L		50.0	1	05/09/12 09:32	05/15/12 21:05	7439-89-6	
Lead, Dissolved	ND ug/L		0.10	1	05/09/12 09:32	05/14/12 15:03	7439-92-1	
Magnesium, Dissolved	<b>19100</b> ug/L		5.0	1	05/09/12 09:32	05/15/12 21:05	7439-95-4	
Manganese, Dissolved	<b>1820</b> ug/L		5.0	10	05/09/12 09:32	05/15/12 21:08	7439-96-5	B
Nickel, Dissolved	<b>5.0</b> ug/L		0.50	1	05/09/12 09:32	05/14/12 15:03	7440-02-0	
Potassium, Dissolved	<b>1680</b> ug/L		20.0	1	05/09/12 09:32	05/15/12 21:05	7440-09-7	
Selenium, Dissolved	ND ug/L		0.50	1	05/09/12 09:32	05/14/12 15:03	7782-49-2	

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## ANALYTICAL RESULTS

Project: APRIL 2012 RICO WATER SAMPLING

Pace Project No.: 60119875

Sample: DR-4	Lab ID: 60119875004	Collected: 04/18/12 10:10	Received: 04/21/12 08:40	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8							
Silver, Dissolved	ND ug/L		0.50	1	05/09/12 09:32	05/14/12 15:03	7440-22-4	
Sodium, Dissolved	<b>10900</b> ug/L		50.0	1	05/09/12 09:32	05/15/12 21:05	7440-23-5	
Thallium, Dissolved	ND ug/L		0.10	1	05/09/12 09:32	05/14/12 15:03	7440-28-0	
Vanadium, Dissolved	ND ug/L		0.10	1	05/09/12 09:32	05/15/12 21:05	7440-62-2	
Zinc, Dissolved	<b>2380</b> ug/L		125	25	05/09/12 09:32	05/14/12 15:09	7440-66-6	
<b>200.8 Potentially Diss. Metals</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum, Dissolved	<b>11.2J</b> ug/L		50.0	1	05/01/12 13:00	05/02/12 16:54	7429-90-5	
Antimony, Dissolved	<b>0.27J</b> ug/L		1.0	1	05/01/12 13:00	05/11/12 17:54	7440-36-0	
Arsenic, Dissolved	<b>0.38J</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 13:43	7440-38-2	
Barium, Dissolved	<b>19.2</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 13:43	7440-39-3	
Beryllium, Dissolved	ND ug/L		0.50	1	05/01/12 13:00	05/02/12 16:54	7440-41-7	
Cadmium, Dissolved	<b>12.9</b> ug/L		0.50	1	05/01/12 13:00	05/02/12 13:43	7440-43-9	
Chromium, Dissolved	<b>1.6</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 13:43	7440-47-3	
Copper, Dissolved	<b>2.7</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 13:43	7440-50-8	
Iron, Dissolved	<b>56.6</b> ug/L		50.0	1	05/01/12 13:00	05/02/12 13:43	7439-89-6	
Lead, Dissolved	<b>5.3</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 13:43	7439-92-1	
Manganese, Dissolved	<b>1970</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 13:43	7439-96-5	
Nickel, Dissolved	<b>4.3</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 13:43	7440-02-0	
Selenium, Dissolved	ND ug/L		1.0	1	05/01/12 13:00	05/02/12 13:43	7782-49-2	
Silver, Dissolved	ND ug/L		0.50	1	05/01/12 13:00	05/02/12 13:43	7440-22-4	
Thallium, Dissolved	<b>0.063J</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 13:43	7440-28-0	
Vanadium, Dissolved	ND ug/L		1.0	1	05/01/12 13:00	05/02/12 13:43	7440-62-2	
Zinc, Dissolved	<b>2450</b> ug/L		10.0	1	05/01/12 13:00	05/02/12 13:43	7440-66-6	
<b>245.1 Mercury</b>	Analytical Method: EPA 245.1							
Mercury	ND ug/L		0.20	1	04/30/12 00:00	05/03/12 13:59	7439-97-6	
<b>245.1 Mercury, Dissolved</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury, Dissolved	ND ug/L		0.20	1	05/15/12 10:45	05/15/12 14:22	7439-97-6	
<b>2510B Specific Conductance</b>	Analytical Method: SM 2510B							
Specific Conductance	<b>1260</b> umhos/cm		10.0	1			04/30/12 17:37	
<b>Salinity</b>	Analytical Method: Calculated							
Salinity (as dissolved solids)	<b>808</b> mg/L		6.0	1			05/02/12 09:41	
Salinity (as seawater)	<b>0.63</b> PSU		0.010	1			05/02/12 09:41	
<b>2320B Alkalinity</b>	Analytical Method: SM 2320B							
Alkalinity,Bicarbonate (CaCO3)	<b>100</b> mg/L		20.0	1			04/30/12 09:30	
Alkalinity, Carbonate (CaCO3)	ND mg/L		20.0	1			04/30/12 09:30	
Alkalinity, Total as CaCO3	ND mg/L		20.0	1			04/30/12 09:30	
<b>2540C Total Dissolved Solids</b>	Analytical Method: SM 2540C							
Total Dissolved Solids	<b>1070</b> mg/L		5.0	1			04/24/12 11:41	

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## ANALYTICAL RESULTS

Project: APRIL 2012 RICO WATER SAMPLING  
Pace Project No.: 60119875

Sample: DR-4	Lab ID: 60119875004	Collected: 04/18/12 10:10	Received: 04/21/12 08:40	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>2540D Total Suspended Solids</b>	Analytical Method: SM 2540D							
Total Suspended Solids	<b>6.0</b>	mg/L	5.0	1		04/24/12 08:27		
<b>300.0 IC Anions 28 Days</b>	Analytical Method: EPA 300.0							
Sulfate	<b>611</b>	mg/L	50.0	50		04/27/12 17:55	14808-79-8	
<b>4500CNE Cyanide, Total</b>	Analytical Method: SM 4500-CN-E							
Cyanide	ND	mg/L	0.0050	1		04/27/12 22:01	57-12-5	

## ANALYTICAL RESULTS

Project: APRIL 2012 RICO WATER SAMPLING

Pace Project No.: 60119875

Sample: DR-5	Lab ID: 60119875005	Collected: 04/18/12 10:40	Received: 04/21/12 08:40	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.7 Potentially Diss. Metals</b>	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7							
Calcium, Dissolved	<b>252000</b> ug/L		100	1	05/01/12 13:00	05/01/12 20:04	7440-70-2	
Magnesium, Dissolved	<b>20300</b> ug/L		50.0	1	05/01/12 13:00	05/01/12 20:04	7439-95-4	
Potassium, Dissolved	<b>1780</b> ug/L		500	1	05/01/12 13:00	05/01/12 20:04	7440-09-7	
Sodium, Dissolved	<b>11000</b> ug/L		500	1	05/01/12 13:00	05/01/12 20:04	7440-23-5	
<b>200.8 MET ICPMS</b>	Analytical Method: EPA 200.8							
Aluminum	<b>116</b> ug/L		4.0	1	05/01/12 06:08	05/03/12 17:41	7429-90-5	
Antimony	ND ug/L		0.50	1	05/01/12 06:08	05/03/12 17:41	7440-36-0	
Arsenic	ND ug/L		0.50	1	05/01/12 06:08	05/03/12 17:41	7440-38-2	
Barium	<b>19.6</b> ug/L		0.30	1	05/01/12 06:08	05/03/12 17:41	7440-39-3	
Beryllium	<b>0.22</b> ug/L		0.20	1	05/01/12 06:08	05/03/12 17:41	7440-41-7	
Cadmium	<b>12.5</b> ug/L		0.080	1	05/01/12 06:08	05/03/12 17:41	7440-43-9	
Calcium	<b>246000</b> ug/L		400	20	05/01/12 06:08	05/03/12 17:45	7440-70-2	
Chromium	ND ug/L		0.50	1	05/01/12 06:08	05/03/12 17:41	7440-47-3	
Copper	<b>20.9</b> ug/L		0.50	1	05/01/12 06:08	05/03/12 17:41	7440-50-8	
Iron	<b>1420</b> ug/L		50.0	1	05/01/12 06:08	05/03/12 17:41	7439-89-6	
Lead	<b>1.5</b> ug/L		0.10	1	05/01/12 06:08	05/03/12 17:41	7439-92-1	
Magnesium	<b>21400</b> ug/L		5.0	1	05/01/12 06:08	05/03/12 17:41	7439-95-4	
Manganese	<b>1780</b> ug/L		10.0	20	05/01/12 06:08	05/03/12 17:45	7439-96-5	
Nickel	<b>4.0</b> ug/L		0.50	1	05/01/12 06:08	05/03/12 17:41	7440-02-0	
Potassium	<b>1840</b> ug/L		20.0	1	05/01/12 06:08	05/03/12 17:41	7440-09-7	
Selenium	ND ug/L		0.50	1	05/01/12 06:08	05/03/12 17:41	7782-49-2	
Silver	ND ug/L		0.50	1	05/01/12 06:08	05/03/12 17:41	7440-22-4	
Sodium	<b>12000</b> ug/L		50.0	1	05/01/12 06:08	05/03/12 17:41	7440-23-5	
Thallium	ND ug/L		0.10	1	05/01/12 06:08	05/03/12 17:41	7440-28-0	
Total Hardness by 2340B	<b>704000</b> ug/L		1420	20	05/01/12 06:08	05/03/12 17:45		
Vanadium	ND ug/L		0.10	1	05/01/12 06:08	05/03/12 17:41	7440-62-2	
Zinc	<b>2320</b> ug/L		100	20	05/01/12 06:08	05/03/12 17:45	7440-66-6	
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8							
Aluminum, Dissolved	<b>9.1</b> ug/L		4.0	1	05/09/12 09:32	05/14/12 15:23	7429-90-5	
Antimony, Dissolved	ND ug/L		0.50	1	05/09/12 09:32	05/14/12 15:23	7440-36-0	
Arsenic, Dissolved	ND ug/L		0.50	1	05/09/12 09:32	05/14/12 15:23	7440-38-2	
Barium, Dissolved	<b>20.3</b> ug/L		0.30	1	05/09/12 09:32	05/14/12 15:23	7440-39-3	
Beryllium, Dissolved	ND ug/L		0.20	1	05/09/12 09:32	05/14/12 15:23	7440-41-7	
Cadmium, Dissolved	<b>10.7</b> ug/L		0.080	1	05/09/12 09:32	05/14/12 15:23	7440-43-9	
Calcium, Dissolved	<b>241000</b> ug/L		500	25	05/09/12 09:32	05/14/12 15:30	7440-70-2	
Chromium, Dissolved	<b>1.1</b> ug/L		0.50	1	05/09/12 09:32	05/14/12 15:23	7440-47-3	
Copper, Dissolved	<b>2.4</b> ug/L		0.50	1	05/09/12 09:32	05/14/12 15:23	7440-50-8	
Iron, Dissolved	ND ug/L		50.0	1	05/09/12 09:32	05/14/12 15:23	7439-89-6	
Lead, Dissolved	ND ug/L		0.10	1	05/09/12 09:32	05/14/12 15:23	7439-92-1	
Magnesium, Dissolved	<b>19600</b> ug/L		5.0	1	05/09/12 09:32	05/14/12 15:23	7439-95-4	
Manganese, Dissolved	<b>1740</b> ug/L		5.0	10	05/09/12 09:32	05/15/12 23:11	7439-96-5	B
Nickel, Dissolved	<b>4.7</b> ug/L		0.50	1	05/09/12 09:32	05/14/12 15:23	7440-02-0	
Potassium, Dissolved	<b>1890</b> ug/L		20.0	1	05/09/12 09:32	05/14/12 15:23	7440-09-7	
Selenium, Dissolved	ND ug/L		0.50	1	05/09/12 09:32	05/14/12 15:23	7782-49-2	

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## ANALYTICAL RESULTS

Project: APRIL 2012 RICO WATER SAMPLING

Pace Project No.: 60119875

Sample: DR-5	Lab ID: 60119875005	Collected: 04/18/12 10:40	Received: 04/21/12 08:40	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8							
Silver, Dissolved	ND ug/L		0.50	1	05/09/12 09:32	05/14/12 15:23	7440-22-4	
Sodium, Dissolved	<b>11200</b> ug/L		50.0	1	05/09/12 09:32	05/14/12 15:23	7440-23-5	
Thallium, Dissolved	ND ug/L		0.10	1	05/09/12 09:32	05/14/12 15:23	7440-28-0	
Vanadium, Dissolved	ND ug/L		0.10	1	05/09/12 09:32	05/14/12 15:23	7440-62-2	
Zinc, Dissolved	<b>2020</b> ug/L		25.0	5	05/09/12 09:32	05/14/12 15:26	7440-66-6	
<b>200.8 Potentially Diss. Metals</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum, Dissolved	ND ug/L		50.0	1	05/01/12 13:00	05/02/12 16:56	7429-90-5	
Antimony, Dissolved	<b>0.26J</b> ug/L		1.0	1	05/01/12 13:00	05/11/12 18:03	7440-36-0	
Arsenic, Dissolved	<b>0.41J</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 13:47	7440-38-2	
Barium, Dissolved	<b>19.0</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 13:47	7440-39-3	
Beryllium, Dissolved	ND ug/L		0.50	1	05/01/12 13:00	05/02/12 16:56	7440-41-7	
Cadmium, Dissolved	<b>11.0</b> ug/L		0.50	1	05/01/12 13:00	05/02/12 13:47	7440-43-9	
Chromium, Dissolved	<b>1.9</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 13:47	7440-47-3	
Copper, Dissolved	<b>2.1</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 13:47	7440-50-8	
Iron, Dissolved	<b>55.5</b> ug/L		50.0	1	05/01/12 13:00	05/02/12 13:47	7439-89-6	
Lead, Dissolved	<b>3.5</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 13:47	7439-92-1	
Manganese, Dissolved	<b>1860</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 13:47	7439-96-5	
Nickel, Dissolved	<b>3.9</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 13:47	7440-02-0	
Selenium, Dissolved	ND ug/L		1.0	1	05/01/12 13:00	05/02/12 13:47	7782-49-2	
Silver, Dissolved	ND ug/L		0.50	1	05/01/12 13:00	05/02/12 13:47	7440-22-4	
Thallium, Dissolved	<b>0.057J</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 13:47	7440-28-0	
Vanadium, Dissolved	ND ug/L		1.0	1	05/01/12 13:00	05/02/12 13:47	7440-62-2	
Zinc, Dissolved	<b>2020</b> ug/L		10.0	1	05/01/12 13:00	05/02/12 13:47	7440-66-6	
<b>245.1 Mercury</b>	Analytical Method: EPA 245.1							
Mercury	ND ug/L		0.20	1	04/30/12 00:00	05/03/12 14:01	7439-97-6	
<b>245.1 Mercury, Dissolved</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury, Dissolved	ND ug/L		0.20	1	05/15/12 10:45	05/15/12 14:24	7439-97-6	
<b>2510B Specific Conductance</b>	Analytical Method: SM 2510B							
Specific Conductance	<b>1330</b> umhos/cm		10.0	1			04/30/12 17:38	
<b>Salinity</b>	Analytical Method: Calculated							
Salinity (as dissolved solids)	<b>849</b> mg/L		6.0	1			05/02/12 09:41	
Salinity (as seawater)	<b>0.66</b> PSU		0.010	1			05/02/12 09:41	
<b>2320B Alkalinity</b>	Analytical Method: SM 2320B							
Alkalinity,Bicarbonate (CaCO3)	<b>116</b> mg/L		20.0	1			05/01/12 10:00	
Alkalinity, Carbonate (CaCO3)	ND mg/L		20.0	1			05/01/12 10:00	
Alkalinity, Total as CaCO3	<b>116</b> mg/L		20.0	1			05/01/12 10:00	
<b>2540C Total Dissolved Solids</b>	Analytical Method: SM 2540C							
Total Dissolved Solids	<b>1080</b> mg/L		5.0	1			04/24/12 11:41	

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## ANALYTICAL RESULTS

Project: APRIL 2012 RICO WATER SAMPLING  
Pace Project No.: 60119875

Sample: DR-5	Lab ID: 60119875005	Collected: 04/18/12 10:40	Received: 04/21/12 08:40	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>2540D Total Suspended Solids</b>	Analytical Method: SM 2540D							
Total Suspended Solids	ND	mg/L	5.0	1		04/24/12 08:27		
<b>300.0 IC Anions 28 Days</b>	Analytical Method: EPA 300.0							
Sulfate	606	mg/L	50.0	50		04/27/12 18:47	14808-79-8	
<b>4500CNE Cyanide, Total</b>	Analytical Method: SM 4500-CN-E							
Cyanide	0.0090	mg/L	0.0050	1		04/27/12 22:04	57-12-5	

## ANALYTICAL RESULTS

Project: APRIL 2012 RICO WATER SAMPLING

Pace Project No.: 60119875

Sample: DR-6	Lab ID: 60119875006	Collected: 04/18/12 11:00	Received: 04/21/12 08:40	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.7 Potentially Diss. Metals</b>	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7							
Calcium, Dissolved	<b>266000</b> ug/L		100	1	05/01/12 13:00	05/01/12 20:07	7440-70-2	
Magnesium, Dissolved	<b>23300</b> ug/L		50.0	1	05/01/12 13:00	05/01/12 20:07	7439-95-4	
Potassium, Dissolved	<b>2480</b> ug/L		500	1	05/01/12 13:00	05/01/12 20:07	7440-09-7	
Sodium, Dissolved	<b>13400</b> ug/L		500	1	05/01/12 13:00	05/01/12 20:07	7440-23-5	
<b>200.8 MET ICPMS</b>	Analytical Method: EPA 200.8							
Aluminum	<b>62.8</b> ug/L		4.0	1	05/01/12 06:08	05/03/12 17:50	7429-90-5	
Antimony	ND ug/L		0.50	1	05/01/12 06:08	05/03/12 17:50	7440-36-0	
Arsenic	ND ug/L		0.50	1	05/01/12 06:08	05/03/12 17:50	7440-38-2	
Barium	<b>20.3</b> ug/L		0.30	1	05/01/12 06:08	05/03/12 17:50	7440-39-3	
Beryllium	ND ug/L		0.20	1	05/01/12 06:08	05/03/12 17:50	7440-41-7	
Cadmium	<b>11.0</b> ug/L		0.080	1	05/01/12 06:08	05/03/12 17:50	7440-43-9	
Calcium	<b>258000</b> ug/L		400	20	05/01/12 06:08	05/03/12 17:54	7440-70-2	
Chromium	ND ug/L		0.50	1	05/01/12 06:08	05/03/12 17:50	7440-47-3	
Copper	<b>11.4</b> ug/L		0.50	1	05/01/12 06:08	05/03/12 17:50	7440-50-8	
Iron	<b>894</b> ug/L		50.0	1	05/01/12 06:08	05/03/12 17:50	7439-89-6	
Lead	<b>0.88</b> ug/L		0.10	1	05/01/12 06:08	05/03/12 17:50	7439-92-1	
Magnesium	<b>24600</b> ug/L		100	20	05/01/12 06:08	05/03/12 17:54	7439-95-4	
Manganese	<b>1680</b> ug/L		10.0	20	05/01/12 06:08	05/03/12 17:54	7439-96-5	
Nickel	<b>3.7</b> ug/L		0.50	1	05/01/12 06:08	05/03/12 17:50	7440-02-0	
Potassium	<b>2530</b> ug/L		20.0	1	05/01/12 06:08	05/03/12 17:50	7440-09-7	
Selenium	ND ug/L		0.50	1	05/01/12 06:08	05/03/12 17:50	7782-49-2	
Silver	ND ug/L		0.50	1	05/01/12 06:08	05/03/12 17:50	7440-22-4	
Sodium	<b>14200</b> ug/L		50.0	1	05/01/12 06:08	05/03/12 17:50	7440-23-5	
Thallium	ND ug/L		0.10	1	05/01/12 06:08	05/03/12 17:50	7440-28-0	
Total Hardness by 2340B	<b>745000</b> ug/L		1420	20	05/01/12 06:08	05/03/12 17:54		
Vanadium	ND ug/L		0.10	1	05/01/12 06:08	05/03/12 17:50	7440-62-2	
Zinc	<b>2180</b> ug/L		100	20	05/01/12 06:08	05/03/12 17:54	7440-66-6	
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8							
Aluminum, Dissolved	<b>84.0</b> ug/L		4.0	1	05/09/12 09:32	05/15/12 23:18	7429-90-5	
Antimony, Dissolved	ND ug/L		0.50	1	05/09/12 09:32	05/14/12 15:33	7440-36-0	
Arsenic, Dissolved	ND ug/L		0.50	1	05/09/12 09:32	05/14/12 15:33	7440-38-2	
Barium, Dissolved	<b>20.7</b> ug/L		0.30	1	05/09/12 09:32	05/14/12 15:33	7440-39-3	
Beryllium, Dissolved	ND ug/L		0.20	1	05/09/12 09:32	05/14/12 15:33	7440-41-7	
Cadmium, Dissolved	<b>9.9</b> ug/L		0.080	1	05/09/12 09:32	05/14/12 15:33	7440-43-9	
Calcium, Dissolved	<b>265000</b> ug/L		500	25	05/09/12 09:32	05/14/12 15:40	7440-70-2	
Chromium, Dissolved	<b>0.96</b> ug/L		0.50	1	05/09/12 09:32	05/15/12 23:18	7440-47-3	
Copper, Dissolved	<b>1.9</b> ug/L		0.50	1	05/09/12 09:32	05/14/12 15:33	7440-50-8	
Iron, Dissolved	ND ug/L		50.0	1	05/09/12 09:32	05/15/12 23:18	7439-89-6	
Lead, Dissolved	ND ug/L		0.10	1	05/09/12 09:32	05/14/12 15:33	7439-92-1	
Magnesium, Dissolved	<b>22000</b> ug/L		5.0	1	05/09/12 09:32	05/15/12 23:18	7439-95-4	
Manganese, Dissolved	<b>1650</b> ug/L		5.0	10	05/09/12 09:32	05/15/12 23:21	7439-96-5	B
Nickel, Dissolved	<b>4.5</b> ug/L		0.50	1	05/09/12 09:32	05/14/12 15:33	7440-02-0	
Potassium, Dissolved	<b>2440</b> ug/L		20.0	1	05/09/12 09:32	05/15/12 23:18	7440-09-7	
Selenium, Dissolved	ND ug/L		0.50	1	05/09/12 09:32	05/14/12 15:33	7782-49-2	

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## ANALYTICAL RESULTS

Project: APRIL 2012 RICO WATER SAMPLING

Pace Project No.: 60119875

Sample: DR-6	Lab ID: 60119875006	Collected: 04/18/12 11:00	Received: 04/21/12 08:40	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8							
Silver, Dissolved	ND ug/L		0.50	1	05/09/12 09:32	05/14/12 15:33	7440-22-4	
Sodium, Dissolved	<b>13000</b> ug/L		50.0	1	05/09/12 09:32	05/15/12 23:18	7440-23-5	
Thallium, Dissolved	ND ug/L		0.10	1	05/09/12 09:32	05/14/12 15:33	7440-28-0	
Vanadium, Dissolved	ND ug/L		0.10	1	05/09/12 09:32	05/15/12 23:18	7440-62-2	
Zinc, Dissolved	<b>2090</b> ug/L		25.0	5	05/09/12 09:32	05/14/12 15:37	7440-66-6	
<b>200.8 Potentially Diss. Metals</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum, Dissolved	ND ug/L		50.0	1	05/01/12 13:00	05/02/12 16:58	7429-90-5	
Antimony, Dissolved	<b>0.24J</b> ug/L		1.0	1	05/01/12 13:00	05/11/12 18:06	7440-36-0	
Arsenic, Dissolved	<b>0.32J</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 13:51	7440-38-2	
Barium, Dissolved	<b>19.3</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 13:51	7440-39-3	
Beryllium, Dissolved	ND ug/L		0.50	1	05/01/12 13:00	05/02/12 16:58	7440-41-7	
Cadmium, Dissolved	<b>10.2</b> ug/L		0.50	1	05/01/12 13:00	05/02/12 13:51	7440-43-9	
Chromium, Dissolved	<b>0.91J</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 13:51	7440-47-3	
Copper, Dissolved	<b>1.8</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 13:51	7440-50-8	
Iron, Dissolved	<b>59.5</b> ug/L		50.0	1	05/01/12 13:00	05/02/12 13:51	7439-89-6	
Lead, Dissolved	<b>4.1</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 13:51	7439-92-1	
Manganese, Dissolved	<b>1750</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 13:51	7439-96-5	
Nickel, Dissolved	<b>3.3</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 13:51	7440-02-0	
Selenium, Dissolved	ND ug/L		1.0	1	05/01/12 13:00	05/02/12 13:51	7782-49-2	
Silver, Dissolved	ND ug/L		0.50	1	05/01/12 13:00	05/02/12 13:51	7440-22-4	
Thallium, Dissolved	<b>0.050J</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 13:51	7440-28-0	
Vanadium, Dissolved	ND ug/L		1.0	1	05/01/12 13:00	05/02/12 13:51	7440-62-2	
Zinc, Dissolved	<b>2020</b> ug/L		10.0	1	05/01/12 13:00	05/02/12 13:51	7440-66-6	
<b>245.1 Mercury</b>	Analytical Method: EPA 245.1							
Mercury	ND ug/L		0.20	1	04/30/12 00:00	05/03/12 14:04	7439-97-6	
<b>245.1 Mercury, Dissolved</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury, Dissolved	ND ug/L		0.20	1	05/15/12 10:45	05/15/12 14:27	7439-97-6	
<b>2510B Specific Conductance</b>	Analytical Method: SM 2510B							
Specific Conductance	<b>1370</b> umhos/cm		10.0	1			04/30/12 17:39	
<b>Salinity</b>	Analytical Method: Calculated							
Salinity (as dissolved solids)	<b>876</b> mg/L		6.0	1			05/02/12 09:41	
Salinity (as seawater)	<b>0.68</b> PSU		0.010	1			05/02/12 09:41	
<b>2320B Alkalinity</b>	Analytical Method: SM 2320B							
Alkalinity,Bicarbonate (CaCO3)	<b>144</b> mg/L		20.0	1			05/01/12 10:00	
Alkalinity, Carbonate (CaCO3)	ND mg/L		20.0	1			05/01/12 10:00	
Alkalinity, Total as CaCO3	<b>144</b> mg/L		20.0	1			05/01/12 10:00	
<b>2540C Total Dissolved Solids</b>	Analytical Method: SM 2540C							
Total Dissolved Solids	<b>1140</b> mg/L		5.0	1			04/24/12 11:41	

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## ANALYTICAL RESULTS

Project: APRIL 2012 RICO WATER SAMPLING  
Pace Project No.: 60119875

Sample: DR-6	Lab ID: 60119875006	Collected: 04/18/12 11:00	Received: 04/21/12 08:40	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>2540D Total Suspended Solids</b>	Analytical Method: SM 2540D							
Total Suspended Solids	ND	mg/L	5.0	1		04/24/12 08:27		
<b>300.0 IC Anions 28 Days</b>	Analytical Method: EPA 300.0							
Sulfate	622	mg/L	50.0	50		04/27/12 19:04	14808-79-8	
<b>4500CNE Cyanide, Total</b>	Analytical Method: SM 4500-CN-E							
Cyanide	ND	mg/L	0.0050	1		04/27/12 22:04	57-12-5	

## ANALYTICAL RESULTS

Project: APRIL 2012 RICO WATER SAMPLING

Pace Project No.: 60119875

Sample: DR-7	Lab ID: 60119875007	Collected: 04/18/12 11:30	Received: 04/21/12 08:40	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.7 Potentially Diss. Metals</b>	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7							
Calcium, Dissolved	<b>45200</b> ug/L		100	1	05/01/12 13:00	05/01/12 20:11	7440-70-2	
Magnesium, Dissolved	<b>6150</b> ug/L		50.0	1	05/01/12 13:00	05/01/12 20:11	7439-95-4	
Potassium, Dissolved	<b>835</b> ug/L		500	1	05/01/12 13:00	05/01/12 20:11	7440-09-7	
Sodium, Dissolved	<b>3220</b> ug/L		500	1	05/01/12 13:00	05/01/12 20:11	7440-23-5	
<b>200.8 MET ICPMS</b>	Analytical Method: EPA 200.8							
Aluminum	<b>284</b> ug/L		4.0	1	05/01/12 06:08	05/03/12 17:59	7429-90-5	
Antimony	ND ug/L		0.50	1	05/01/12 06:08	05/03/12 17:59	7440-36-0	
Arsenic	ND ug/L		0.50	1	05/01/12 06:08	05/03/12 17:59	7440-38-2	
Barium	<b>49.0</b> ug/L		0.30	1	05/01/12 06:08	05/03/12 17:59	7440-39-3	
Beryllium	ND ug/L		0.20	1	05/01/12 06:08	05/03/12 17:59	7440-41-7	
Cadmium	<b>0.36</b> ug/L		0.080	1	05/01/12 06:08	05/03/12 17:59	7440-43-9	
Calcium	<b>42700</b> ug/L		100	5	05/01/12 06:08	05/03/12 18:04	7440-70-2	
Chromium	<b>0.81</b> ug/L		0.50	1	05/01/12 06:08	05/03/12 17:59	7440-47-3	
Copper	<b>1.4</b> ug/L		0.50	1	05/01/12 06:08	05/03/12 17:59	7440-50-8	
Iron	<b>324</b> ug/L		50.0	1	05/01/12 06:08	05/03/12 17:59	7439-89-6	
Lead	<b>0.30</b> ug/L		0.10	1	05/01/12 06:08	05/03/12 17:59	7439-92-1	
Magnesium	<b>6340</b> ug/L		5.0	1	05/01/12 06:08	05/03/12 17:59	7439-95-4	
Manganese	<b>119</b> ug/L		0.50	1	05/01/12 06:08	05/03/12 17:59	7439-96-5	
Nickel	<b>0.84</b> ug/L		0.50	1	05/01/12 06:08	05/03/12 17:59	7440-02-0	
Potassium	<b>958</b> ug/L		20.0	1	05/01/12 06:08	05/03/12 17:59	7440-09-7	
Selenium	ND ug/L		0.50	1	05/01/12 06:08	05/03/12 17:59	7782-49-2	
Silver	ND ug/L		0.50	1	05/01/12 06:08	05/03/12 17:59	7440-22-4	
Sodium	<b>3420</b> ug/L		50.0	1	05/01/12 06:08	05/03/12 17:59	7440-23-5	
Thallium	ND ug/L		0.10	1	05/01/12 06:08	05/03/12 17:59	7440-28-0	
Total Hardness by 2340B	<b>133000</b> ug/L		355	5	05/01/12 06:08	05/03/12 18:04		
Vanadium	<b>0.53</b> ug/L		0.10	1	05/01/12 06:08	05/03/12 17:59	7440-62-2	
Zinc	<b>91.7</b> ug/L		5.0	1	05/01/12 06:08	05/03/12 17:59	7440-66-6	
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8							
Aluminum, Dissolved	<b>80.2</b> ug/L		4.0	1	05/09/12 09:32	05/14/12 15:43	7429-90-5	
Antimony, Dissolved	ND ug/L		0.50	1	05/09/12 09:32	05/14/12 15:43	7440-36-0	
Arsenic, Dissolved	ND ug/L		0.50	1	05/09/12 09:32	05/14/12 15:43	7440-38-2	
Barium, Dissolved	<b>47.5</b> ug/L		0.30	1	05/09/12 09:32	05/14/12 15:43	7440-39-3	
Beryllium, Dissolved	ND ug/L		0.20	1	05/09/12 09:32	05/14/12 15:43	7440-41-7	
Cadmium, Dissolved	<b>0.53</b> ug/L		0.080	1	05/09/12 09:32	05/14/12 15:43	7440-43-9	
Calcium, Dissolved	<b>43200</b> ug/L		100	5	05/09/12 09:32	05/14/12 15:47	7440-70-2	
Chromium, Dissolved	<b>1.5</b> ug/L		0.50	1	05/09/12 09:32	05/14/12 15:43	7440-47-3	
Copper, Dissolved	<b>1.2</b> ug/L		0.50	1	05/09/12 09:32	05/14/12 15:43	7440-50-8	
Iron, Dissolved	<b>89.9</b> ug/L		50.0	1	05/09/12 09:32	05/14/12 15:43	7439-89-6	
Lead, Dissolved	<b>0.11</b> ug/L		0.10	1	05/09/12 09:32	05/14/12 15:43	7439-92-1	
Magnesium, Dissolved	<b>5940</b> ug/L		5.0	1	05/09/12 09:32	05/14/12 15:43	7439-95-4	
Manganese, Dissolved	<b>117</b> ug/L		0.50	1	05/09/12 09:32	05/15/12 23:45	7439-96-5	B
Nickel, Dissolved	<b>1.1</b> ug/L		0.50	1	05/09/12 09:32	05/14/12 15:43	7440-02-0	
Potassium, Dissolved	<b>972</b> ug/L		20.0	1	05/09/12 09:32	05/14/12 15:43	7440-09-7	
Selenium, Dissolved	ND ug/L		0.50	1	05/09/12 09:32	05/14/12 15:43	7782-49-2	

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## ANALYTICAL RESULTS

Project: APRIL 2012 RICO WATER SAMPLING

Pace Project No.: 60119875

Sample: DR-7	Lab ID: 60119875007	Collected: 04/18/12 11:30	Received: 04/21/12 08:40	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8							
Silver, Dissolved	ND ug/L		0.50	1	05/09/12 09:32	05/14/12 15:43	7440-22-4	
Sodium, Dissolved	<b>3450</b> ug/L		50.0	1	05/09/12 09:32	05/14/12 15:43	7440-23-5	
Thallium, Dissolved	ND ug/L		0.10	1	05/09/12 09:32	05/14/12 15:43	7440-28-0	
Vanadium, Dissolved	<b>0.22</b> ug/L		0.10	1	05/09/12 09:32	05/14/12 15:43	7440-62-2	
Zinc, Dissolved	<b>109</b> ug/L		5.0	1	05/09/12 09:32	05/14/12 15:43	7440-66-6	
<b>200.8 Potentially Diss. Metals</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum, Dissolved	<b>16.5J</b> ug/L		50.0	1	05/01/12 13:00	05/02/12 17:00	7429-90-5	
Antimony, Dissolved	<b>0.13J</b> ug/L		1.0	1	05/01/12 13:00	05/11/12 18:09	7440-36-0	
Arsenic, Dissolved	<b>0.55J</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 13:55	7440-38-2	
Barium, Dissolved	<b>46.6</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 13:55	7440-39-3	
Beryllium, Dissolved	ND ug/L		0.50	1	05/01/12 13:00	05/02/12 17:00	7440-41-7	
Cadmium, Dissolved	<b>0.42J</b> ug/L		0.50	1	05/01/12 13:00	05/02/12 13:55	7440-43-9	
Chromium, Dissolved	<b>0.92J</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 13:55	7440-47-3	
Copper, Dissolved	<b>2.4</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 13:55	7440-50-8	
Iron, Dissolved	<b>74.6</b> ug/L		50.0	1	05/01/12 13:00	05/02/12 13:55	7439-89-6	
Lead, Dissolved	<b>5.4</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 13:55	7439-92-1	
Manganese, Dissolved	<b>114</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 13:55	7439-96-5	
Nickel, Dissolved	<b>1.9</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 13:55	7440-02-0	
Selenium, Dissolved	ND ug/L		1.0	1	05/01/12 13:00	05/02/12 13:55	7782-49-2	
Silver, Dissolved	ND ug/L		0.50	1	05/01/12 13:00	05/02/12 13:55	7440-22-4	
Thallium, Dissolved	ND ug/L		1.0	1	05/01/12 13:00	05/02/12 13:55	7440-28-0	
Vanadium, Dissolved	ND ug/L		1.0	1	05/01/12 13:00	05/02/12 13:55	7440-62-2	
Zinc, Dissolved	<b>84.1</b> ug/L		10.0	1	05/01/12 13:00	05/02/12 13:55	7440-66-6	
<b>245.1 Mercury</b>	Analytical Method: EPA 245.1							
Mercury	ND ug/L		0.20	1	04/30/12 00:00	05/03/12 14:06	7439-97-6	
<b>245.1 Mercury, Dissolved</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury, Dissolved	ND ug/L		0.20	1	05/15/12 10:45	05/15/12 14:29	7439-97-6	
<b>2510B Specific Conductance</b>	Analytical Method: SM 2510B							
Specific Conductance	<b>290</b> umhos/cm		10.0	1			04/30/12 17:41	
<b>Salinity</b>	Analytical Method: Calculated							
Salinity (as dissolved solids)	<b>185</b> mg/L		6.0	1			05/02/12 09:41	
Salinity (as seawater)	<b>0.14</b> PSU		0.010	1			05/02/12 09:41	
<b>2320B Alkalinity</b>	Analytical Method: SM 2320B							
Alkalinity,Bicarbonate (CaCO3)	<b>82.0</b> mg/L		20.0	1			05/01/12 10:00	
Alkalinity, Carbonate (CaCO3)	ND mg/L		20.0	1			05/01/12 10:00	
Alkalinity, Total as CaCO3	<b>82.0</b> mg/L		20.0	1			05/01/12 10:00	
<b>2540C Total Dissolved Solids</b>	Analytical Method: SM 2540C							
Total Dissolved Solids	<b>190</b> mg/L		5.0	1			04/24/12 11:41	

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## ANALYTICAL RESULTS

Project: APRIL 2012 RICO WATER SAMPLING  
Pace Project No.: 60119875

Sample: DR-7	Lab ID: 60119875007	Collected: 04/18/12 11:30	Received: 04/21/12 08:40	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>2540D Total Suspended Solids</b>	Analytical Method: SM 2540D							
Total Suspended Solids	ND	mg/L	5.0	1		04/24/12 08:27		
<b>300.0 IC Anions 28 Days</b>	Analytical Method: EPA 300.0							
Sulfate	49.9	mg/L	10.0	10		04/27/12 19:21	14808-79-8	
<b>4500CNE Cyanide, Total</b>	Analytical Method: SM 4500-CN-E							
Cyanide	0.026	mg/L	0.0050	1		04/27/12 22:05	57-12-5	

## ANALYTICAL RESULTS

Project: APRIL 2012 RICO WATER SAMPLING

Pace Project No.: 60119875

Sample: DR-8	Lab ID: 60119875008	Collected: 04/18/12 10:15	Received: 04/21/12 08:40	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.7 Potentially Diss. Metals</b>	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7							
Calcium, Dissolved	<b>250000</b> ug/L		100	1	05/01/12 13:00	05/01/12 20:21	7440-70-2	
Magnesium, Dissolved	<b>19700</b> ug/L		50.0	1	05/01/12 13:00	05/01/12 20:21	7439-95-4	
Potassium, Dissolved	<b>1650</b> ug/L		500	1	05/01/12 13:00	05/01/12 20:21	7440-09-7	
Sodium, Dissolved	<b>10900</b> ug/L		500	1	05/01/12 13:00	05/01/12 20:21	7440-23-5	
<b>200.8 MET ICPMS</b>	Analytical Method: EPA 200.8							
Aluminum	<b>822</b> ug/L		4.0	1	05/01/12 06:08	05/03/12 18:08	7429-90-5	
Antimony	ND ug/L		0.50	1	05/01/12 06:08	05/03/12 18:08	7440-36-0	
Arsenic	<b>1.4</b> ug/L		0.50	1	05/01/12 06:08	05/03/12 18:08	7440-38-2	
Barium	<b>21.4</b> ug/L		0.30	1	05/01/12 06:08	05/03/12 18:08	7440-39-3	
Beryllium	<b>1.2</b> ug/L		0.20	1	05/01/12 06:08	05/03/12 18:08	7440-41-7	
Cadmium	<b>18.4</b> ug/L		0.080	1	05/01/12 06:08	05/03/12 18:08	7440-43-9	
Calcium	<b>240000</b> ug/L		400	20	05/01/12 06:08	05/03/12 18:13	7440-70-2	
Chromium	<b>0.84</b> ug/L		0.50	1	05/01/12 06:08	05/03/12 18:08	7440-47-3	
Copper	<b>142</b> ug/L		0.50	1	05/01/12 06:08	05/03/12 18:08	7440-50-8	
Iron	<b>9250</b> ug/L		50.0	1	05/01/12 06:08	05/03/12 18:08	7439-89-6	
Lead	<b>14.4</b> ug/L		0.10	1	05/01/12 06:08	05/03/12 18:08	7439-92-1	
Magnesium	<b>20300</b> ug/L		5.0	1	05/01/12 06:08	05/03/12 18:08	7439-95-4	
Manganese	<b>1950</b> ug/L		10.0	20	05/01/12 06:08	05/03/12 18:13	7439-96-5	
Nickel	<b>8.1</b> ug/L		0.50	1	05/01/12 06:08	05/03/12 18:08	7440-02-0	
Potassium	<b>1650</b> ug/L		20.0	1	05/01/12 06:08	05/03/12 18:08	7440-09-7	
Selenium	ND ug/L		0.50	1	05/01/12 06:08	05/03/12 18:08	7782-49-2	
Silver	ND ug/L		0.50	1	05/01/12 06:08	05/03/12 18:08	7440-22-4	
Sodium	<b>11500</b> ug/L		50.0	1	05/01/12 06:08	05/03/12 18:08	7440-23-5	
Thallium	ND ug/L		0.10	1	05/01/12 06:08	05/03/12 18:08	7440-28-0	
Total Hardness by 2340B	<b>683000</b> ug/L		1420	20	05/01/12 06:08	05/03/12 18:13		
Vanadium	<b>0.27</b> ug/L		0.10	1	05/01/12 06:08	05/03/12 18:08	7440-62-2	
Zinc	<b>3630</b> ug/L		100	20	05/01/12 06:08	05/03/12 18:13	7440-66-6	
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8							
Aluminum, Dissolved	<b>10.6</b> ug/L		4.0	1	05/09/12 09:32	05/14/12 16:04	7429-90-5	
Antimony, Dissolved	ND ug/L		0.50	1	05/09/12 09:32	05/14/12 16:04	7440-36-0	
Arsenic, Dissolved	ND ug/L		0.50	1	05/09/12 09:32	05/14/12 16:04	7440-38-2	
Barium, Dissolved	<b>21.5</b> ug/L		0.30	1	05/09/12 09:32	05/14/12 16:04	7440-39-3	
Beryllium, Dissolved	ND ug/L		0.20	1	05/09/12 09:32	05/14/12 16:04	7440-41-7	
Cadmium, Dissolved	<b>13.3</b> ug/L		0.080	1	05/09/12 09:32	05/14/12 16:04	7440-43-9	
Calcium, Dissolved	<b>243000</b> ug/L		500	25	05/09/12 09:32	05/14/12 16:11	7440-70-2	
Chromium, Dissolved	<b>1.0</b> ug/L		0.50	1	05/09/12 09:32	05/14/12 16:04	7440-47-3	
Copper, Dissolved	<b>2.8</b> ug/L		0.50	1	05/09/12 09:32	05/14/12 16:04	7440-50-8	
Iron, Dissolved	ND ug/L		50.0	1	05/09/12 09:32	05/14/12 16:04	7439-89-6	
Lead, Dissolved	ND ug/L		0.10	1	05/09/12 09:32	05/14/12 16:04	7439-92-1	
Magnesium, Dissolved	<b>18600</b> ug/L		5.0	1	05/09/12 09:32	05/14/12 16:04	7439-95-4	
Manganese, Dissolved	<b>1940</b> ug/L		2.5	5	05/09/12 09:32	05/14/12 16:07	7439-96-5	B
Nickel, Dissolved	<b>5.8</b> ug/L		0.50	1	05/09/12 09:32	05/14/12 16:04	7440-02-0	
Potassium, Dissolved	<b>1700</b> ug/L		20.0	1	05/09/12 09:32	05/14/12 16:04	7440-09-7	
Selenium, Dissolved	ND ug/L		0.50	1	05/09/12 09:32	05/14/12 16:04	7782-49-2	

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## ANALYTICAL RESULTS

Project: APRIL 2012 RICO WATER SAMPLING

Pace Project No.: 60119875

Sample: DR-8	Lab ID: 60119875008	Collected: 04/18/12 10:15	Received: 04/21/12 08:40	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8							
Silver, Dissolved	ND ug/L		0.50	1	05/09/12 09:32	05/14/12 16:04	7440-22-4	
Sodium, Dissolved	<b>10900</b> ug/L		50.0	1	05/09/12 09:32	05/14/12 16:04	7440-23-5	
Thallium, Dissolved	ND ug/L		0.10	1	05/09/12 09:32	05/14/12 16:04	7440-28-0	
Vanadium, Dissolved	ND ug/L		0.10	1	05/09/12 09:32	05/14/12 16:04	7440-62-2	
Zinc, Dissolved	<b>2960</b> ug/L		125	25	05/09/12 09:32	05/14/12 16:11	7440-66-6	
<b>200.8 Potentially Diss. Metals</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum, Dissolved	<b>14.6J</b> ug/L		50.0	1	05/01/12 13:00	05/02/12 17:02	7429-90-5	
Antimony, Dissolved	<b>0.26J</b> ug/L		1.0	1	05/01/12 13:00	05/11/12 18:11	7440-36-0	
Arsenic, Dissolved	<b>0.43J</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 14:00	7440-38-2	
Barium, Dissolved	<b>20.1</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 14:00	7440-39-3	
Beryllium, Dissolved	<b>0.35J</b> ug/L		0.50	1	05/01/12 13:00	05/02/12 17:02	7440-41-7	
Cadmium, Dissolved	<b>16.5</b> ug/L		0.50	1	05/01/12 13:00	05/02/12 14:00	7440-43-9	
Chromium, Dissolved	<b>0.84J</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 14:00	7440-47-3	
Copper, Dissolved	<b>7.4</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 14:00	7440-50-8	
Iron, Dissolved	<b>1110</b> ug/L		50.0	1	05/01/12 13:00	05/02/12 14:00	7439-89-6	
Lead, Dissolved	<b>4.7</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 14:00	7439-92-1	
Manganese, Dissolved	<b>2040</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 14:00	7439-96-5	M1
Nickel, Dissolved	<b>4.1</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 14:00	7440-02-0	
Selenium, Dissolved	ND ug/L		1.0	1	05/01/12 13:00	05/02/12 14:00	7782-49-2	
Silver, Dissolved	ND ug/L		0.50	1	05/01/12 13:00	05/02/12 14:00	7440-22-4	
Thallium, Dissolved	<b>0.060J</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 14:00	7440-28-0	
Vanadium, Dissolved	ND ug/L		1.0	1	05/01/12 13:00	05/02/12 14:00	7440-62-2	
Zinc, Dissolved	<b>3310</b> ug/L		10.0	1	05/01/12 13:00	05/02/12 14:00	7440-66-6	M1
<b>245.1 Mercury</b>	Analytical Method: EPA 245.1							
Mercury	ND ug/L		0.20	1	04/30/12 00:00	05/03/12 14:16	7439-97-6	
<b>245.1 Mercury, Dissolved</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury, Dissolved	ND ug/L		0.20	1	05/15/12 10:45	05/15/12 14:35	7439-97-6	
<b>2510B Specific Conductance</b>	Analytical Method: SM 2510B							
Specific Conductance	<b>1220</b> umhos/cm		10.0	1			04/30/12 17:41	
<b>Salinity</b>	Analytical Method: Calculated							
Salinity (as dissolved solids)	<b>778</b> mg/L		6.0	1			05/02/12 09:41	
Salinity (as seawater)	<b>0.60</b> PSU		0.010	1			05/02/12 09:41	
<b>2320B Alkalinity</b>	Analytical Method: SM 2320B							
Alkalinity,Bicarbonate (CaCO3)	<b>106</b> mg/L		20.0	1			05/01/12 10:00	
Alkalinity, Carbonate (CaCO3)	ND mg/L		20.0	1			05/01/12 10:00	
Alkalinity, Total as CaCO3	<b>106</b> mg/L		20.0	1			05/01/12 10:00	
<b>2540C Total Dissolved Solids</b>	Analytical Method: SM 2540C							
Total Dissolved Solids	<b>1060</b> mg/L		5.0	1			04/24/12 11:41	

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## ANALYTICAL RESULTS

Project: APRIL 2012 RICO WATER SAMPLING  
Pace Project No.: 60119875

Sample: DR-8	Lab ID: 60119875008	Collected: 04/18/12 10:15	Received: 04/21/12 08:40	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>2540D Total Suspended Solids</b>	Analytical Method: SM 2540D							
Total Suspended Solids	<b>24.0</b>	mg/L	5.0	1		04/24/12 08:27		
<b>300.0 IC Anions 28 Days</b>	Analytical Method: EPA 300.0							
Sulfate	<b>614</b>	mg/L	50.0	50		04/27/12 19:38	14808-79-8	
<b>4500CNE Cyanide, Total</b>	Analytical Method: SM 4500-CN-E							
Cyanide	<b>0.033</b>	mg/L	0.0050	1		04/27/12 22:08	57-12-5	

## ANALYTICAL RESULTS

Project: APRIL 2012 RICO WATER SAMPLING

Pace Project No.: 60119875

Sample: DR-4-SW	Lab ID: 60119875009	Collected: 04/18/12 12:00	Received: 04/21/12 08:40	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.7 Potentially Diss. Metals</b>	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7							
Calcium, Dissolved	<b>38000</b> ug/L		100	1	05/01/12 13:00	05/01/12 20:25	7440-70-2	
Magnesium, Dissolved	<b>5180</b> ug/L		50.0	1	05/01/12 13:00	05/01/12 20:25	7439-95-4	
Potassium, Dissolved	<b>670</b> ug/L		500	1	05/01/12 13:00	05/01/12 20:25	7440-09-7	
Sodium, Dissolved	<b>2420</b> ug/L		500	1	05/01/12 13:00	05/01/12 20:25	7440-23-5	
<b>200.8 MET ICPMS</b>	Analytical Method: EPA 200.8							
Aluminum	<b>322</b> ug/L		4.0	1	05/01/12 06:08	05/03/12 18:27	7429-90-5	
Antimony	ND ug/L		0.50	1	05/01/12 06:08	05/03/12 18:27	7440-36-0	
Arsenic	ND ug/L		0.50	1	05/01/12 06:08	05/03/12 18:27	7440-38-2	
Barium	<b>51.8</b> ug/L		0.30	1	05/01/12 06:08	05/03/12 18:27	7440-39-3	
Beryllium	ND ug/L		0.20	1	05/01/12 06:08	05/03/12 18:27	7440-41-7	
Cadmium	<b>0.38</b> ug/L		0.080	1	05/01/12 06:08	05/03/12 18:27	7440-43-9	
Calcium	<b>38800</b> ug/L		100	5	05/01/12 06:08	05/03/12 18:32	7440-70-2	
Chromium	<b>0.84</b> ug/L		0.50	1	05/01/12 06:08	05/03/12 18:27	7440-47-3	
Copper	<b>1.5</b> ug/L		0.50	1	05/01/12 06:08	05/03/12 18:27	7440-50-8	
Iron	<b>284</b> ug/L		50.0	1	05/01/12 06:08	05/03/12 18:27	7439-89-6	
Lead	<b>0.52</b> ug/L		0.10	1	05/01/12 06:08	05/03/12 18:27	7439-92-1	
Magnesium	<b>5510</b> ug/L		5.0	1	05/01/12 06:08	05/03/12 18:27	7439-95-4	
Manganese	<b>76.3</b> ug/L		0.50	1	05/01/12 06:08	05/03/12 18:27	7439-96-5	
Nickel	<b>0.76</b> ug/L		0.50	1	05/01/12 06:08	05/03/12 18:27	7440-02-0	
Potassium	<b>790</b> ug/L		20.0	1	05/01/12 06:08	05/03/12 18:27	7440-09-7	
Selenium	<b>0.52</b> ug/L		0.50	1	05/01/12 06:08	05/03/12 18:27	7782-49-2	
Silver	ND ug/L		0.50	1	05/01/12 06:08	05/03/12 18:27	7440-22-4	
Sodium	<b>2620</b> ug/L		50.0	1	05/01/12 06:08	05/03/12 18:27	7440-23-5	
Thallium	ND ug/L		0.10	1	05/01/12 06:08	05/03/12 18:27	7440-28-0	
Total Hardness by 2340B	<b>120000</b> ug/L		355	5	05/01/12 06:08	05/03/12 18:32		
Vanadium	<b>0.60</b> ug/L		0.10	1	05/01/12 06:08	05/03/12 18:27	7440-62-2	
Zinc	<b>83.2</b> ug/L		5.0	1	05/01/12 06:08	05/03/12 18:27	7440-66-6	
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8							
Aluminum, Dissolved	<b>78.7</b> ug/L		4.0	1	05/09/12 09:32	05/14/12 16:14	7429-90-5	
Antimony, Dissolved	ND ug/L		0.50	1	05/09/12 09:32	05/14/12 16:14	7440-36-0	
Arsenic, Dissolved	ND ug/L		0.50	1	05/09/12 09:32	05/14/12 16:14	7440-38-2	
Barium, Dissolved	<b>47.4</b> ug/L		0.30	1	05/09/12 09:32	05/14/12 16:14	7440-39-3	
Beryllium, Dissolved	ND ug/L		0.20	1	05/09/12 09:32	05/14/12 16:14	7440-41-7	
Cadmium, Dissolved	<b>0.44</b> ug/L		0.080	1	05/09/12 09:32	05/14/12 16:14	7440-43-9	
Calcium, Dissolved	<b>36400</b> ug/L		100	5	05/09/12 09:32	05/14/12 16:18	7440-70-2	
Chromium, Dissolved	<b>1.8</b> ug/L		0.50	1	05/09/12 09:32	05/14/12 16:14	7440-47-3	
Copper, Dissolved	<b>1.2</b> ug/L		0.50	1	05/09/12 09:32	05/14/12 16:14	7440-50-8	
Iron, Dissolved	<b>83.4</b> ug/L		50.0	1	05/09/12 09:32	05/14/12 16:14	7439-89-6	
Lead, Dissolved	<b>0.15</b> ug/L		0.10	1	05/09/12 09:32	05/14/12 16:14	7439-92-1	
Magnesium, Dissolved	<b>5070</b> ug/L		5.0	1	05/09/12 09:32	05/14/12 16:14	7439-95-4	
Manganese, Dissolved	<b>74.4</b> ug/L		0.50	1	05/09/12 09:32	05/15/12 23:52	7439-96-5	B
Nickel, Dissolved	<b>1.2</b> ug/L		0.50	1	05/09/12 09:32	05/14/12 16:14	7440-02-0	
Potassium, Dissolved	<b>738</b> ug/L		20.0	1	05/09/12 09:32	05/14/12 16:14	7440-09-7	
Selenium, Dissolved	<b>0.59</b> ug/L		0.50	1	05/09/12 09:32	05/14/12 16:14	7782-49-2	

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## ANALYTICAL RESULTS

Project: APRIL 2012 RICO WATER SAMPLING

Pace Project No.: 60119875

Sample: DR-4-SW	Lab ID: 60119875009	Collected: 04/18/12 12:00	Received: 04/21/12 08:40	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8							
Silver, Dissolved	ND ug/L		0.50	1	05/09/12 09:32	05/14/12 16:14	7440-22-4	
Sodium, Dissolved	<b>2520</b> ug/L		50.0	1	05/09/12 09:32	05/14/12 16:14	7440-23-5	
Thallium, Dissolved	ND ug/L		0.10	1	05/09/12 09:32	05/14/12 16:14	7440-28-0	
Vanadium, Dissolved	<b>0.22</b> ug/L		0.10	1	05/09/12 09:32	05/14/12 16:14	7440-62-2	
Zinc, Dissolved	<b>96.5</b> ug/L		5.0	1	05/09/12 09:32	05/14/12 16:14	7440-66-6	
<b>200.8 Potentially Diss. Metals</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum, Dissolved	<b>18.9J</b> ug/L		50.0	1	05/01/12 13:00	05/02/12 17:14	7429-90-5	
Antimony, Dissolved	<b>0.15J</b> ug/L		1.0	1	05/01/12 13:00	05/11/12 18:14	7440-36-0	
Arsenic, Dissolved	<b>0.40J</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 14:25	7440-38-2	
Barium, Dissolved	<b>47.5</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 14:25	7440-39-3	
Beryllium, Dissolved	ND ug/L		0.50	1	05/01/12 13:00	05/02/12 17:14	7440-41-7	
Cadmium, Dissolved	<b>0.34J</b> ug/L		0.50	1	05/01/12 13:00	05/02/12 14:25	7440-43-9	
Chromium, Dissolved	<b>1.8</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 14:25	7440-47-3	
Copper, Dissolved	<b>1.3</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 14:25	7440-50-8	
Iron, Dissolved	<b>52.5</b> ug/L		50.0	1	05/01/12 13:00	05/02/12 14:25	7439-89-6	
Lead, Dissolved	<b>1.3</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 14:25	7439-92-1	
Manganese, Dissolved	<b>70.5</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 14:25	7439-96-5	
Nickel, Dissolved	<b>1.4</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 14:25	7440-02-0	
Selenium, Dissolved	<b>0.40J</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 14:25	7782-49-2	
Silver, Dissolved	ND ug/L		0.50	1	05/01/12 13:00	05/02/12 14:25	7440-22-4	
Thallium, Dissolved	<b>0.028J</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 14:25	7440-28-0	
Vanadium, Dissolved	ND ug/L		1.0	1	05/01/12 13:00	05/02/12 14:25	7440-62-2	
Zinc, Dissolved	<b>74.5</b> ug/L		10.0	1	05/01/12 13:00	05/02/12 14:25	7440-66-6	
<b>245.1 Mercury</b>	Analytical Method: EPA 245.1							
Mercury	ND ug/L		0.20	1	04/30/12 00:00	05/03/12 14:18	7439-97-6	
<b>245.1 Mercury, Dissolved</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury, Dissolved	ND ug/L		0.20	1	05/15/12 10:45	05/15/12 14:38	7439-97-6	
<b>2510B Specific Conductance</b>	Analytical Method: SM 2510B							
Specific Conductance	<b>260</b> umhos/cm		10.0	1			04/30/12 17:45	
<b>Salinity</b>	Analytical Method: Calculated							
Salinity (as dissolved solids)	<b>166</b> mg/L		6.0	1			05/02/12 09:41	
Salinity (as seawater)	<b>0.12</b> PSU		0.010	1			05/02/12 09:41	
<b>2320B Alkalinity</b>	Analytical Method: SM 2320B							
Alkalinity,Bicarbonate (CaCO3)	<b>450</b> mg/L		20.0	1			05/01/12 10:00	
Alkalinity, Carbonate (CaCO3)	ND mg/L		20.0	1			05/01/12 10:00	
Alkalinity, Total as CaCO3	<b>450</b> mg/L		20.0	1			05/01/12 10:00	
<b>2540C Total Dissolved Solids</b>	Analytical Method: SM 2540C							
Total Dissolved Solids	<b>156</b> mg/L		5.0	1			04/24/12 11:41	

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## ANALYTICAL RESULTS

Project: APRIL 2012 RICO WATER SAMPLING  
Pace Project No.: 60119875

Sample: DR-4-SW	Lab ID: 60119875009	Collected: 04/18/12 12:00	Received: 04/21/12 08:40	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>2540D Total Suspended Solids</b>	Analytical Method: SM 2540D							
Total Suspended Solids	5.0	mg/L	5.0	1		04/24/12 08:27		
<b>300.0 IC Anions 28 Days</b>	Analytical Method: EPA 300.0							
Sulfate	32.3	mg/L	10.0	10		04/27/12 19:55	14808-79-8	
<b>4500CNE Cyanide, Total</b>	Analytical Method: SM 4500-CN-E							
Cyanide	ND	mg/L	0.0050	1		04/27/12 22:09	57-12-5	

## ANALYTICAL RESULTS

Project: APRIL 2012 RICO WATER SAMPLING

Pace Project No.: 60119875

Sample: DR-G	Lab ID: 60119875010	Collected: 04/18/12 12:25	Received: 04/21/12 08:40	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.7 Potentially Diss. Metals</b>	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7							
Calcium, Dissolved	<b>40300</b> ug/L		100	1	05/01/12 13:00	05/01/12 20:28	7440-70-2	
Magnesium, Dissolved	<b>5290</b> ug/L		50.0	1	05/01/12 13:00	05/01/12 20:28	7439-95-4	
Potassium, Dissolved	<b>666</b> ug/L		500	1	05/01/12 13:00	05/01/12 20:28	7440-09-7	
Sodium, Dissolved	<b>2480</b> ug/L		500	1	05/01/12 13:00	05/01/12 20:28	7440-23-5	
<b>200.8 MET ICPMS</b>	Analytical Method: EPA 200.8							
Aluminum	<b>254</b> ug/L		4.0	1	05/01/12 06:08	05/03/12 18:36	7429-90-5	
Antimony	ND ug/L		0.50	1	05/01/12 06:08	05/03/12 18:36	7440-36-0	
Arsenic	ND ug/L		0.50	1	05/01/12 06:08	05/03/12 18:36	7440-38-2	
Barium	<b>69.4</b> ug/L		0.30	1	05/01/12 06:08	05/03/12 18:36	7440-39-3	
Beryllium	ND ug/L		0.20	1	05/01/12 06:08	05/03/12 18:36	7440-41-7	
Cadmium	<b>0.30</b> ug/L		0.080	1	05/01/12 06:08	05/03/12 18:36	7440-43-9	
Calcium	<b>39500</b> ug/L		100	5	05/01/12 06:08	05/03/12 18:41	7440-70-2	
Chromium	<b>0.63</b> ug/L		0.50	1	05/01/12 06:08	05/03/12 18:36	7440-47-3	
Copper	<b>1.2</b> ug/L		0.50	1	05/01/12 06:08	05/03/12 18:36	7440-50-8	
Iron	<b>232</b> ug/L		50.0	1	05/01/12 06:08	05/03/12 18:36	7439-89-6	
Lead	<b>0.33</b> ug/L		0.10	1	05/01/12 06:08	05/03/12 18:36	7439-92-1	
Magnesium	<b>5460</b> ug/L		5.0	1	05/01/12 06:08	05/03/12 18:36	7439-95-4	
Manganese	<b>51.8</b> ug/L		0.50	1	05/01/12 06:08	05/03/12 18:36	7439-96-5	
Nickel	<b>0.63</b> ug/L		0.50	1	05/01/12 06:08	05/03/12 18:36	7440-02-0	
Potassium	<b>752</b> ug/L		20.0	1	05/01/12 06:08	05/03/12 18:36	7440-09-7	
Selenium	ND ug/L		0.50	1	05/01/12 06:08	05/03/12 18:36	7782-49-2	
Silver	ND ug/L		0.50	1	05/01/12 06:08	05/03/12 18:36	7440-22-4	
Sodium	<b>2590</b> ug/L		50.0	1	05/01/12 06:08	05/03/12 18:36	7440-23-5	
Thallium	ND ug/L		0.10	1	05/01/12 06:08	05/03/12 18:36	7440-28-0	
Total Hardness by 2340B	<b>121000</b> ug/L		355	5	05/01/12 06:08	05/03/12 18:41		
Vanadium	<b>0.62</b> ug/L		0.10	1	05/01/12 06:08	05/03/12 18:36	7440-62-2	
Zinc	<b>59.9</b> ug/L		5.0	1	05/01/12 06:08	05/03/12 18:36	7440-66-6	
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8							
Aluminum, Dissolved	<b>61.6</b> ug/L		4.0	1	05/09/12 09:32	05/14/12 16:24	7429-90-5	
Antimony, Dissolved	ND ug/L		0.50	1	05/09/12 09:32	05/14/12 16:24	7440-36-0	
Arsenic, Dissolved	ND ug/L		0.50	1	05/09/12 09:32	05/14/12 16:24	7440-38-2	
Barium, Dissolved	<b>67.1</b> ug/L		0.30	1	05/09/12 09:32	05/14/12 16:24	7440-39-3	
Beryllium, Dissolved	ND ug/L		0.20	1	05/09/12 09:32	05/14/12 16:24	7440-41-7	
Cadmium, Dissolved	<b>0.30</b> ug/L		0.080	1	05/09/12 09:32	05/14/12 16:24	7440-43-9	
Calcium, Dissolved	<b>38400</b> ug/L		100	5	05/09/12 09:32	05/14/12 16:28	7440-70-2	
Chromium, Dissolved	<b>1.8</b> ug/L		0.50	1	05/09/12 09:32	05/14/12 16:24	7440-47-3	
Copper, Dissolved	<b>0.96</b> ug/L		0.50	1	05/09/12 09:32	05/14/12 16:24	7440-50-8	
Iron, Dissolved	<b>60.5</b> ug/L		50.0	1	05/09/12 09:32	05/14/12 16:24	7439-89-6	
Lead, Dissolved	<b>0.10</b> ug/L		0.10	1	05/09/12 09:32	05/14/12 16:24	7439-92-1	
Magnesium, Dissolved	<b>5030</b> ug/L		5.0	1	05/09/12 09:32	05/14/12 16:24	7439-95-4	
Manganese, Dissolved	<b>47.6</b> ug/L		0.50	1	05/09/12 09:32	05/15/12 23:59	7439-96-5	B
Nickel, Dissolved	<b>0.84</b> ug/L		0.50	1	05/09/12 09:32	05/14/12 16:24	7440-02-0	
Potassium, Dissolved	<b>717</b> ug/L		20.0	1	05/09/12 09:32	05/14/12 16:24	7440-09-7	
Selenium, Dissolved	ND ug/L		0.50	1	05/09/12 09:32	05/14/12 16:24	7782-49-2	

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## ANALYTICAL RESULTS

Project: APRIL 2012 RICO WATER SAMPLING

Pace Project No.: 60119875

Sample: DR-G	Lab ID: 60119875010	Collected: 04/18/12 12:25	Received: 04/21/12 08:40	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8							
Silver, Dissolved	ND ug/L		0.50	1	05/09/12 09:32	05/14/12 16:24	7440-22-4	
Sodium, Dissolved	<b>2500</b> ug/L		50.0	1	05/09/12 09:32	05/14/12 16:24	7440-23-5	
Thallium, Dissolved	ND ug/L		0.10	1	05/09/12 09:32	05/14/12 16:24	7440-28-0	
Vanadium, Dissolved	<b>0.30</b> ug/L		0.10	1	05/09/12 09:32	05/14/12 16:24	7440-62-2	
Zinc, Dissolved	<b>60.0</b> ug/L		5.0	1	05/09/12 09:32	05/14/12 16:24	7440-66-6	
<b>200.8 Potentially Diss. Metals</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum, Dissolved	<b>16.6J</b> ug/L		50.0	1	05/01/12 13:00	05/02/12 17:16	7429-90-5	
Antimony, Dissolved	<b>0.11J</b> ug/L		1.0	1	05/01/12 13:00	05/11/12 18:17	7440-36-0	
Arsenic, Dissolved	<b>0.38J</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 14:29	7440-38-2	
Barium, Dissolved	<b>67.1</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 14:29	7440-39-3	
Beryllium, Dissolved	ND ug/L		0.50	1	05/01/12 13:00	05/02/12 17:16	7440-41-7	
Cadmium, Dissolved	<b>0.19J</b> ug/L		0.50	1	05/01/12 13:00	05/02/12 14:29	7440-43-9	
Chromium, Dissolved	<b>1.2</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 14:29	7440-47-3	
Copper, Dissolved	<b>2.5</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 14:29	7440-50-8	
Iron, Dissolved	<b>41.4J</b> ug/L		50.0	1	05/01/12 13:00	05/02/12 14:29	7439-89-6	
Lead, Dissolved	<b>1.3</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 14:29	7439-92-1	
Manganese, Dissolved	<b>48.1</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 14:29	7439-96-5	
Nickel, Dissolved	<b>1.9</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 14:29	7440-02-0	
Selenium, Dissolved	ND ug/L		1.0	1	05/01/12 13:00	05/02/12 14:29	7782-49-2	
Silver, Dissolved	ND ug/L		0.50	1	05/01/12 13:00	05/02/12 14:29	7440-22-4	
Thallium, Dissolved	ND ug/L		1.0	1	05/01/12 13:00	05/02/12 14:29	7440-28-0	
Vanadium, Dissolved	ND ug/L		1.0	1	05/01/12 13:00	05/02/12 14:29	7440-62-2	
Zinc, Dissolved	<b>41.7</b> ug/L		10.0	1	05/01/12 13:00	05/02/12 14:29	7440-66-6	
<b>245.1 Mercury</b>	Analytical Method: EPA 245.1							
Mercury	ND ug/L		0.20	1	04/30/12 00:00	05/03/12 14:25	7439-97-6	
<b>245.1 Mercury, Dissolved</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury, Dissolved	ND ug/L		0.20	1	05/15/12 10:45	05/15/12 14:42	7439-97-6	
<b>2510B Specific Conductance</b>	Analytical Method: SM 2510B							
Specific Conductance	<b>241</b> umhos/cm		10.0	1			04/30/12 17:46	
<b>Salinity</b>	Analytical Method: Calculated							
Salinity (as dissolved solids)	<b>154</b> mg/L		6.0	1			05/02/12 09:41	
Salinity (as seawater)	<b>0.12</b> PSU		0.010	1			05/02/12 09:41	
<b>2320B Alkalinity</b>	Analytical Method: SM 2320B							
Alkalinity,Bicarbonate (CaCO3)	<b>94.0</b> mg/L		20.0	1			05/01/12 10:00	
Alkalinity, Carbonate (CaCO3)	ND mg/L		20.0	1			05/01/12 10:00	
Alkalinity, Total as CaCO3	<b>94.0</b> mg/L		20.0	1			05/01/12 10:00	
<b>2540C Total Dissolved Solids</b>	Analytical Method: SM 2540C							
Total Dissolved Solids	<b>155</b> mg/L		5.0	1			04/24/12 11:42	

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## ANALYTICAL RESULTS

Project: APRIL 2012 RICO WATER SAMPLING  
Pace Project No.: 60119875

Sample: DR-G	Lab ID: 60119875010	Collected: 04/18/12 12:25	Received: 04/21/12 08:40	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>2540D Total Suspended Solids</b>	Analytical Method: SM 2540D							
Total Suspended Solids	<b>6.0</b>	mg/L	5.0	1		04/24/12 08:29		
<b>300.0 IC Anions 28 Days</b>	Analytical Method: EPA 300.0							
Sulfate	<b>28.1</b>	mg/L	10.0	10		04/27/12 20:12	14808-79-8	
<b>4500CNE Cyanide, Total</b>	Analytical Method: SM 4500-CN-E							
Cyanide	<b>0.0079</b>	mg/L	0.0050	1		04/27/12 22:09	57-12-5	

## ANALYTICAL RESULTS

Project: APRIL 2012 RICO WATER SAMPLING

Pace Project No.: 60119875

Sample: FB	Lab ID: 60119875011	Collected: 04/18/12 09:50	Received: 04/21/12 08:40	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.7 Potentially Diss. Metals</b>	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7							
Calcium, Dissolved	ND ug/L		100	1	05/01/12 13:00	05/01/12 20:32	7440-70-2	
Magnesium, Dissolved	ND ug/L		50.0	1	05/01/12 13:00	05/01/12 20:32	7439-95-4	
Potassium, Dissolved	ND ug/L		500	1	05/01/12 13:00	05/01/12 20:32	7440-09-7	
Sodium, Dissolved	ND ug/L		500	1	05/01/12 13:00	05/01/12 20:32	7440-23-5	
<b>200.8 MET ICPMS</b>	Analytical Method: EPA 200.8							
Aluminum	ND ug/L		4.0	1	05/01/12 06:08	05/03/12 18:46	7429-90-5	
Antimony	ND ug/L		0.50	1	05/01/12 06:08	05/03/12 18:46	7440-36-0	
Arsenic	ND ug/L		0.50	1	05/01/12 06:08	05/03/12 18:46	7440-38-2	
Barium	ND ug/L		0.30	1	05/01/12 06:08	05/03/12 18:46	7440-39-3	
Beryllium	ND ug/L		0.20	1	05/01/12 06:08	05/03/12 18:46	7440-41-7	
Cadmium	ND ug/L		0.080	1	05/01/12 06:08	05/03/12 18:46	7440-43-9	
Calcium	ND ug/L		20.0	1	05/01/12 06:08	05/03/12 18:46	7440-70-2	
Chromium	0.54 ug/L		0.50	1	05/01/12 06:08	05/03/12 18:46	7440-47-3	
Copper	ND ug/L		0.50	1	05/01/12 06:08	05/03/12 18:46	7440-50-8	
Iron	ND ug/L		50.0	1	05/01/12 06:08	05/03/12 18:46	7439-89-6	
Lead	ND ug/L		0.10	1	05/01/12 06:08	05/03/12 18:46	7439-92-1	
Magnesium	ND ug/L		5.0	1	05/01/12 06:08	05/03/12 18:46	7439-95-4	
Manganese	ND ug/L		0.50	1	05/01/12 06:08	05/03/12 18:46	7439-96-5	
Nickel	ND ug/L		0.50	1	05/01/12 06:08	05/03/12 18:46	7440-02-0	
Potassium	ND ug/L		20.0	1	05/01/12 06:08	05/03/12 18:46	7440-09-7	
Selenium	ND ug/L		0.50	1	05/01/12 06:08	05/03/12 18:46	7782-49-2	
Silver	ND ug/L		0.50	1	05/01/12 06:08	05/03/12 18:46	7440-22-4	
Sodium	460 ug/L		50.0	1	05/01/12 06:08	05/03/12 18:46	7440-23-5	
Thallium	ND ug/L		0.10	1	05/01/12 06:08	05/03/12 18:46	7440-28-0	
Total Hardness by 2340B	ND ug/L		71.0	1	05/01/12 06:08	05/03/12 18:46		
Vanadium	ND ug/L		0.10	1	05/01/12 06:08	05/03/12 18:46	7440-62-2	
Zinc	ND ug/L		5.0	1	05/01/12 06:08	05/03/12 18:46	7440-66-6	
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8							
Aluminum, Dissolved	8.6 ug/L		4.0	1	05/09/12 09:32	05/14/12 16:45	7429-90-5	
Antimony, Dissolved	ND ug/L		0.50	1	05/09/12 09:32	05/14/12 16:45	7440-36-0	
Arsenic, Dissolved	ND ug/L		0.50	1	05/09/12 09:32	05/14/12 16:45	7440-38-2	
Barium, Dissolved	0.38 ug/L		0.30	1	05/09/12 09:32	05/14/12 16:45	7440-39-3	
Beryllium, Dissolved	ND ug/L		0.20	1	05/09/12 09:32	05/14/12 16:45	7440-41-7	
Cadmium, Dissolved	ND ug/L		0.080	1	05/09/12 09:32	05/14/12 16:45	7440-43-9	
Calcium, Dissolved	159 ug/L		20.0	1	05/09/12 09:32	05/14/12 16:45	7440-70-2	
Chromium, Dissolved	1.1 ug/L		0.50	1	05/09/12 09:32	05/14/12 16:45	7440-47-3	
Copper, Dissolved	ND ug/L		0.50	1	05/09/12 09:32	05/14/12 16:45	7440-50-8	
Iron, Dissolved	ND ug/L		50.0	1	05/09/12 09:32	05/14/12 16:45	7439-89-6	
Lead, Dissolved	ND ug/L		0.10	1	05/09/12 09:32	05/14/12 16:45	7439-92-1	
Magnesium, Dissolved	11.6 ug/L		5.0	1	05/09/12 09:32	05/14/12 16:45	7439-95-4	
Manganese, Dissolved	1.0 ug/L		0.50	1	05/09/12 09:32	05/16/12 00:05	7439-96-5	B
Nickel, Dissolved	ND ug/L		0.50	1	05/09/12 09:32	05/14/12 16:45	7440-02-0	
Potassium, Dissolved	26.4 ug/L		20.0	1	05/09/12 09:32	05/14/12 16:45	7440-09-7	
Selenium, Dissolved	ND ug/L		0.50	1	05/09/12 09:32	05/14/12 16:45	7782-49-2	

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## ANALYTICAL RESULTS

Project: APRIL 2012 RICO WATER SAMPLING

Pace Project No.: 60119875

Sample: FB	Lab ID: 60119875011	Collected: 04/18/12 09:50	Received: 04/21/12 08:40	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8							
Silver, Dissolved	ND ug/L		0.50	1	05/09/12 09:32	05/14/12 16:45	7440-22-4	
Sodium, Dissolved	<b>524</b> ug/L		50.0	1	05/09/12 09:32	05/14/12 16:45	7440-23-5	
Thallium, Dissolved	ND ug/L		0.10	1	05/09/12 09:32	05/14/12 16:45	7440-28-0	
Vanadium, Dissolved	ND ug/L		0.10	1	05/09/12 09:32	05/14/12 16:45	7440-62-2	
Zinc, Dissolved	ND ug/L		5.0	1	05/09/12 09:32	05/14/12 16:45	7440-66-6	
<b>200.8 Potentially Diss. Metals</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum, Dissolved	ND ug/L		50.0	1	05/01/12 13:00	05/02/12 17:18	7429-90-5	
Antimony, Dissolved	ND ug/L		1.0	1	05/01/12 13:00	05/11/12 18:20	7440-36-0	
Arsenic, Dissolved	<b>0.062J</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 14:33	7440-38-2	
Barium, Dissolved	<b>0.30J</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 14:33	7440-39-3	
Beryllium, Dissolved	ND ug/L		0.50	1	05/01/12 13:00	05/02/12 17:18	7440-41-7	
Cadmium, Dissolved	ND ug/L		0.50	1	05/01/12 13:00	05/02/12 14:33	7440-43-9	
Chromium, Dissolved	<b>0.84J</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 14:33	7440-47-3	
Copper, Dissolved	<b>0.29J</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 14:33	7440-50-8	
Iron, Dissolved	<b>25.0J</b> ug/L		50.0	1	05/01/12 13:00	05/02/12 14:33	7439-89-6	
Lead, Dissolved	1.5 ug/L		1.0	1	05/01/12 13:00	05/02/12 14:33	7439-92-1	
Manganese, Dissolved	<b>0.72J</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 14:33	7439-96-5	
Nickel, Dissolved	<b>0.27J</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 14:33	7440-02-0	
Selenium, Dissolved	ND ug/L		1.0	1	05/01/12 13:00	05/02/12 14:33	7782-49-2	
Silver, Dissolved	ND ug/L		0.50	1	05/01/12 13:00	05/02/12 14:33	7440-22-4	
Thallium, Dissolved	ND ug/L		1.0	1	05/01/12 13:00	05/02/12 14:33	7440-28-0	
Vanadium, Dissolved	ND ug/L		1.0	1	05/01/12 13:00	05/02/12 14:33	7440-62-2	
Zinc, Dissolved	ND ug/L		10.0	1	05/01/12 13:00	05/02/12 14:33	7440-66-6	
<b>245.1 Mercury</b>	Analytical Method: EPA 245.1							
Mercury	ND ug/L		0.20	1	04/30/12 00:00	05/03/12 14:27	7439-97-6	
<b>245.1 Mercury, Dissolved</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury, Dissolved	ND ug/L		0.20	1	05/15/12 10:45	05/15/12 14:44	7439-97-6	
<b>2510B Specific Conductance</b>	Analytical Method: SM 2510B							
Specific Conductance	ND umhos/cm		10.0	1			04/30/12 17:48	
<b>Salinity</b>	Analytical Method: Calculated							
Salinity (as dissolved solids)	ND mg/L		6.0	1			05/02/12 09:41	
Salinity (as seawater)	<b>0.012</b> PSU		0.010	1			05/02/12 09:41	
<b>2320B Alkalinity</b>	Analytical Method: SM 2320B							
Alkalinity,Bicarbonate (CaCO3)	ND mg/L		20.0	1			05/01/12 10:00	
Alkalinity, Carbonate (CaCO3)	ND mg/L		20.0	1			05/01/12 10:00	
Alkalinity, Total as CaCO3	ND mg/L		20.0	1			05/01/12 10:00	
<b>2540C Total Dissolved Solids</b>	Analytical Method: SM 2540C							
Total Dissolved Solids	<b>7.0</b> mg/L		5.0	1			04/24/12 11:42	

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## ANALYTICAL RESULTS

Project: APRIL 2012 RICO WATER SAMPLING  
Pace Project No.: 60119875

Sample: FB	Lab ID: 60119875011	Collected: 04/18/12 09:50	Received: 04/21/12 08:40	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>2540D Total Suspended Solids</b>	Analytical Method: SM 2540D							
Total Suspended Solids	ND	mg/L	5.0	1		04/24/12 08:29		
<b>300.0 IC Anions 28 Days</b>	Analytical Method: EPA 300.0							
Sulfate	ND	mg/L	1.0	1		04/27/12 20:29	14808-79-8	
<b>4500CNE Cyanide, Total</b>	Analytical Method: SM 4500-CN-E							
Cyanide	ND	mg/L	0.0050	1		04/27/12 22:12	57-12-5	

## ANALYTICAL RESULTS

Project: APRIL 2012 RICO WATER SAMPLING

Pace Project No.: 60119875

Sample: GW-1	Lab ID: 60119875012	Collected: 04/19/12 08:30	Received: 04/21/12 08:40	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.7 Potentially Diss. Metals</b>	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7							
Calcium, Dissolved	<b>40900</b> ug/L		100	1	05/01/12 13:00	05/01/12 20:43	7440-70-2	
Magnesium, Dissolved	<b>4760</b> ug/L		50.0	1	05/01/12 13:00	05/01/12 20:43	7439-95-4	
Potassium, Dissolved	<b>524</b> ug/L		500	1	05/01/12 13:00	05/01/12 20:43	7440-09-7	
Sodium, Dissolved	<b>2210</b> ug/L		500	1	05/01/12 13:00	05/01/12 20:43	7440-23-5	
<b>200.8 MET ICPMS</b>	Analytical Method: EPA 200.8							
Aluminum	<b>1770</b> ug/L		4.0	1	05/01/12 06:08	05/03/12 18:55	7429-90-5	
Antimony	ND ug/L		0.50	1	05/01/12 06:08	05/03/12 18:55	7440-36-0	
Arsenic	<b>2.3</b> ug/L		0.50	1	05/01/12 06:08	05/03/12 18:55	7440-38-2	
Barium	<b>80.8</b> ug/L		0.30	1	05/01/12 06:08	05/03/12 18:55	7440-39-3	
Beryllium	ND ug/L		0.20	1	05/01/12 06:08	05/03/12 18:55	7440-41-7	
Cadmium	<b>0.27</b> ug/L		0.080	1	05/01/12 06:08	05/03/12 18:55	7440-43-9	
Calcium	<b>39300</b> ug/L		400	20	05/01/12 06:08	05/03/12 19:00	7440-70-2	
Chromium	<b>2.0</b> ug/L		0.50	1	05/01/12 06:08	05/03/12 18:55	7440-47-3	
Copper	<b>10.3</b> ug/L		0.50	1	05/01/12 06:08	05/03/12 18:55	7440-50-8	
Iron	<b>2600</b> ug/L		50.0	1	05/01/12 06:08	05/03/12 18:55	7439-89-6	
Lead	<b>10.2</b> ug/L		0.10	1	05/01/12 06:08	05/03/12 18:55	7439-92-1	
Magnesium	<b>5600</b> ug/L		5.0	1	05/01/12 06:08	05/03/12 18:55	7439-95-4	
Manganese	<b>349</b> ug/L		0.50	1	05/01/12 06:08	05/03/12 18:55	7439-96-5	
Nickel	<b>2.8</b> ug/L		0.50	1	05/01/12 06:08	05/03/12 18:55	7440-02-0	
Potassium	<b>1070</b> ug/L		20.0	1	05/01/12 06:08	05/03/12 18:55	7440-09-7	
Selenium	<b>0.55</b> ug/L		0.50	1	05/01/12 06:08	05/03/12 18:55	7782-49-2	
Silver	ND ug/L		0.50	1	05/01/12 06:08	05/03/12 18:55	7440-22-4	
Sodium	<b>2450</b> ug/L		50.0	1	05/01/12 06:08	05/03/12 18:55	7440-23-5	
Thallium	ND ug/L		0.10	1	05/01/12 06:08	05/03/12 18:55	7440-28-0	
Total Hardness by 2340B	<b>121000</b> ug/L		1420	20	05/01/12 06:08	05/03/12 19:00		
Vanadium	<b>3.6</b> ug/L		0.10	1	05/01/12 06:08	05/03/12 18:55	7440-62-2	
Zinc	<b>29.5</b> ug/L		5.0	1	05/01/12 06:08	05/03/12 18:55	7440-66-6	
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8							
Aluminum, Dissolved	<b>8.4</b> ug/L		4.0	1	05/09/12 09:32	05/14/12 17:02	7429-90-5	
Antimony, Dissolved	ND ug/L		0.50	1	05/09/12 09:32	05/14/12 17:02	7440-36-0	
Arsenic, Dissolved	ND ug/L		0.50	1	05/09/12 09:32	05/14/12 17:02	7440-38-2	
Barium, Dissolved	<b>45.6</b> ug/L		0.30	1	05/09/12 09:32	05/14/12 17:02	7440-39-3	
Beryllium, Dissolved	ND ug/L		0.20	1	05/09/12 09:32	05/14/12 17:02	7440-41-7	
Cadmium, Dissolved	<b>0.094</b> ug/L		0.080	1	05/09/12 09:32	05/14/12 17:02	7440-43-9	
Calcium, Dissolved	<b>39400</b> ug/L		100	5	05/09/12 09:32	05/14/12 17:05	7440-70-2	
Chromium, Dissolved	<b>1.2</b> ug/L		0.50	1	05/09/12 09:32	05/14/12 17:02	7440-47-3	
Copper, Dissolved	<b>0.88</b> ug/L		0.50	1	05/09/12 09:32	05/14/12 17:02	7440-50-8	
Iron, Dissolved	ND ug/L		50.0	1	05/09/12 09:32	05/14/12 17:02	7439-89-6	
Lead, Dissolved	ND ug/L		0.10	1	05/09/12 09:32	05/14/12 17:02	7439-92-1	
Magnesium, Dissolved	<b>4540</b> ug/L		5.0	1	05/09/12 09:32	05/14/12 17:02	7439-95-4	
Manganese, Dissolved	<b>3.8</b> ug/L		0.50	1	05/09/12 09:32	05/16/12 01:58	7439-96-5	B
Nickel, Dissolved	ND ug/L		0.50	1	05/09/12 09:32	05/14/12 17:02	7440-02-0	
Potassium, Dissolved	<b>560</b> ug/L		20.0	1	05/09/12 09:32	05/14/12 17:02	7440-09-7	
Selenium, Dissolved	ND ug/L		0.50	1	05/09/12 09:32	05/14/12 17:02	7782-49-2	

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## ANALYTICAL RESULTS

Project: APRIL 2012 RICO WATER SAMPLING

Pace Project No.: 60119875

Sample: GW-1	Lab ID: 60119875012	Collected: 04/19/12 08:30	Received: 04/21/12 08:40	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8							
Silver, Dissolved	ND ug/L		0.50	1	05/09/12 09:32	05/14/12 17:02	7440-22-4	
Sodium, Dissolved	<b>2340</b> ug/L		50.0	1	05/09/12 09:32	05/14/12 17:02	7440-23-5	
Thallium, Dissolved	ND ug/L		0.10	1	05/09/12 09:32	05/14/12 17:02	7440-28-0	
Vanadium, Dissolved	ND ug/L		0.10	1	05/09/12 09:32	05/14/12 17:02	7440-62-2	
Zinc, Dissolved	<b>28.2</b> ug/L		5.0	1	05/09/12 09:32	05/14/12 17:02	7440-66-6	
<b>200.8 Potentially Diss. Metals</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum, Dissolved	ND ug/L		50.0	1	05/01/12 13:00	05/02/12 17:20	7429-90-5	
Antimony, Dissolved	<b>0.16J</b> ug/L		1.0	1	05/01/12 13:00	05/11/12 18:23	7440-36-0	
Arsenic, Dissolved	<b>0.25J</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 14:37	7440-38-2	
Barium, Dissolved	<b>43.9</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 14:37	7440-39-3	
Beryllium, Dissolved	ND ug/L		0.50	1	05/01/12 13:00	05/02/12 17:20	7440-41-7	
Cadmium, Dissolved	ND ug/L		0.50	1	05/01/12 13:00	05/02/12 14:37	7440-43-9	
Chromium, Dissolved	<b>2.1</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 14:37	7440-47-3	
Copper, Dissolved	<b>9.1</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 14:37	7440-50-8	
Iron, Dissolved	<b>53.4</b> ug/L		50.0	1	05/01/12 13:00	05/02/12 14:37	7439-89-6	
Lead, Dissolved	<b>1.9</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 14:37	7439-92-1	
Manganese, Dissolved	<b>0.68J</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 14:37	7439-96-5	
Nickel, Dissolved	<b>0.81J</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 14:37	7440-02-0	
Selenium, Dissolved	ND ug/L		1.0	1	05/01/12 13:00	05/02/12 14:37	7782-49-2	
Silver, Dissolved	ND ug/L		0.50	1	05/01/12 13:00	05/02/12 14:37	7440-22-4	
Thallium, Dissolved	ND ug/L		1.0	1	05/01/12 13:00	05/02/12 14:37	7440-28-0	
Vanadium, Dissolved	ND ug/L		1.0	1	05/01/12 13:00	05/02/12 14:37	7440-62-2	
Zinc, Dissolved	<b>7.1J</b> ug/L		10.0	1	05/01/12 13:00	05/02/12 14:37	7440-66-6	
<b>245.1 Mercury</b>	Analytical Method: EPA 245.1							
Mercury	ND ug/L		0.20	1	04/30/12 00:00	05/03/12 14:29	7439-97-6	
<b>245.1 Mercury, Dissolved</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury, Dissolved	<b>0.30</b> ug/L		0.20	1	05/15/12 10:45	05/15/12 14:47	7439-97-6	
<b>2510B Specific Conductance</b>	Analytical Method: SM 2510B							
Specific Conductance	<b>261</b> umhos/cm		10.0	1			04/30/12 17:49	
<b>Salinity</b>	Analytical Method: Calculated							
Salinity (as dissolved solids)	<b>167</b> mg/L		6.0	1			05/02/12 09:41	
Salinity (as seawater)	<b>0.13</b> PSU		0.010	1			05/02/12 09:41	
<b>2320B Alkalinity</b>	Analytical Method: SM 2320B							
Alkalinity,Bicarbonate (CaCO3)	<b>94.0</b> mg/L		20.0	1			05/01/12 10:00	
Alkalinity, Carbonate (CaCO3)	ND mg/L		20.0	1			05/01/12 10:00	
Alkalinity, Total as CaCO3	<b>94.0</b> mg/L		20.0	1			05/01/12 10:00	
<b>2540C Total Dissolved Solids</b>	Analytical Method: SM 2540C							
Total Dissolved Solids	<b>166</b> mg/L		5.0	1			04/24/12 11:43	

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## ANALYTICAL RESULTS

Project: APRIL 2012 RICO WATER SAMPLING  
Pace Project No.: 60119875

Sample: GW-1	Lab ID: 60119875012	Collected: 04/19/12 08:30	Received: 04/21/12 08:40	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>2540D Total Suspended Solids</b>	Analytical Method: SM 2540D							
Total Suspended Solids	128	mg/L	5.0	1		04/24/12 08:32		
<b>300.0 IC Anions 28 Days</b>	Analytical Method: EPA 300.0							
Sulfate	29.2	mg/L	5.0	5		04/27/12 21:04	14808-79-8	
<b>4500CNE Cyanide, Total</b>	Analytical Method: SM 4500-CN-E							
Cyanide	0.046	mg/L	0.0050	1		04/27/12 22:12	57-12-5	

## ANALYTICAL RESULTS

Project: APRIL 2012 RICO WATER SAMPLING

Pace Project No.: 60119875

Sample: GW-3	Lab ID: 60119875013	Collected: 04/19/12 09:00	Received: 04/21/12 08:40	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.7 Potentially Diss. Metals</b>	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7							
Calcium, Dissolved	<b>153000</b> ug/L		100	1	05/01/12 13:00	05/01/12 20:46	7440-70-2	
Magnesium, Dissolved	<b>20500</b> ug/L		50.0	1	05/01/12 13:00	05/01/12 20:46	7439-95-4	
Potassium, Dissolved	<b>2330</b> ug/L		500	1	05/01/12 13:00	05/01/12 20:46	7440-09-7	
Sodium, Dissolved	<b>3870</b> ug/L		500	1	05/01/12 13:00	05/01/12 20:46	7440-23-5	
<b>200.8 MET ICPMS</b>	Analytical Method: EPA 200.8							
Aluminum	<b>10900</b> ug/L		4.0	1	05/01/12 06:08	05/03/12 19:04	7429-90-5	
Antimony	<b>0.53</b> ug/L		0.50	1	05/01/12 06:08	05/03/12 19:04	7440-36-0	
Arsenic	<b>15.8</b> ug/L		0.50	1	05/01/12 06:08	05/03/12 19:04	7440-38-2	
Barium	<b>150</b> ug/L		0.30	1	05/01/12 06:08	05/03/12 19:04	7440-39-3	
Beryllium	<b>0.82</b> ug/L		0.20	1	05/01/12 06:08	05/03/12 19:04	7440-41-7	
Cadmium	<b>5.0</b> ug/L		0.080	1	05/01/12 06:08	05/03/12 19:04	7440-43-9	
Calcium	<b>153000</b> ug/L		400	20	05/01/12 06:08	05/03/12 19:09	7440-70-2	
Chromium	<b>14.9</b> ug/L		0.50	1	05/01/12 06:08	05/03/12 19:04	7440-47-3	
Copper	<b>103</b> ug/L		0.50	1	05/01/12 06:08	05/03/12 19:04	7440-50-8	
Iron	<b>19000</b> ug/L		50.0	1	05/01/12 06:08	05/03/12 19:04	7439-89-6	
Lead	<b>152</b> ug/L		0.10	1	05/01/12 06:08	05/03/12 19:04	7439-92-1	
Magnesium	<b>26100</b> ug/L		100	20	05/01/12 06:08	05/03/12 19:09	7439-95-4	
Manganese	<b>1960</b> ug/L		10.0	20	05/01/12 06:08	05/03/12 19:09	7439-96-5	
Nickel	<b>14.1</b> ug/L		0.50	1	05/01/12 06:08	05/03/12 19:04	7440-02-0	
Potassium	<b>4040</b> ug/L		20.0	1	05/01/12 06:08	05/03/12 19:04	7440-09-7	
Selenium	<b>13.0</b> ug/L		0.50	1	05/01/12 06:08	05/03/12 19:04	7782-49-2	
Silver	<b>1.9</b> ug/L		0.50	1	05/01/12 06:08	05/03/12 19:04	7440-22-4	
Sodium	<b>4460</b> ug/L		50.0	1	05/01/12 06:08	05/03/12 19:04	7440-23-5	
Thallium	<b>0.12</b> ug/L		0.10	1	05/01/12 06:08	05/03/12 19:04	7440-28-0	
Total Hardness by 2340B	<b>489000</b> ug/L		1420	20	05/01/12 06:08	05/03/12 19:09		
Vanadium	<b>19.0</b> ug/L		0.10	1	05/01/12 06:08	05/03/12 19:04	7440-62-2	
Zinc	<b>754</b> ug/L		100	20	05/01/12 06:08	05/03/12 19:09	7440-66-6	
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8							
Aluminum, Dissolved	<b>8.1</b> ug/L		4.0	1	05/09/12 09:32	05/14/12 17:22	7429-90-5	
Antimony, Dissolved	ND ug/L		0.50	1	05/09/12 09:32	05/14/12 17:22	7440-36-0	
Arsenic, Dissolved	ND ug/L		0.50	1	05/09/12 09:32	05/14/12 17:22	7440-38-2	
Barium, Dissolved	<b>17.5</b> ug/L		0.30	1	05/09/12 09:32	05/14/12 17:22	7440-39-3	
Beryllium, Dissolved	ND ug/L		0.20	1	05/09/12 09:32	05/14/12 17:22	7440-41-7	
Cadmium, Dissolved	<b>0.16</b> ug/L		0.080	1	05/09/12 09:32	05/14/12 17:22	7440-43-9	
Calcium, Dissolved	<b>148000</b> ug/L		500	25	05/09/12 09:32	05/14/12 17:29	7440-70-2	
Chromium, Dissolved	<b>1.0</b> ug/L		0.50	1	05/09/12 09:32	05/14/12 17:22	7440-47-3	
Copper, Dissolved	<b>0.66</b> ug/L		0.50	1	05/09/12 09:32	05/14/12 17:22	7440-50-8	
Iron, Dissolved	ND ug/L		50.0	1	05/09/12 09:32	05/14/12 17:22	7439-89-6	
Lead, Dissolved	ND ug/L		0.10	1	05/09/12 09:32	05/14/12 17:22	7439-92-1	
Magnesium, Dissolved	<b>19100</b> ug/L		5.0	1	05/09/12 09:32	05/14/12 17:22	7439-95-4	
Manganese, Dissolved	<b>1.6</b> ug/L		0.50	1	05/09/12 09:32	05/16/12 02:05	7439-96-5	B
Nickel, Dissolved	ND ug/L		0.50	1	05/09/12 09:32	05/14/12 17:22	7440-02-0	
Potassium, Dissolved	<b>2430</b> ug/L		20.0	1	05/09/12 09:32	05/14/12 17:22	7440-09-7	
Selenium, Dissolved	<b>9.9</b> ug/L		0.50	1	05/09/12 09:32	05/14/12 17:22	7782-49-2	

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## ANALYTICAL RESULTS

Project: APRIL 2012 RICO WATER SAMPLING

Pace Project No.: 60119875

Sample: GW-3	Lab ID: 60119875013	Collected: 04/19/12 09:00	Received: 04/21/12 08:40	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8							
Silver, Dissolved	ND ug/L		0.50	1	05/09/12 09:32	05/14/12 17:22	7440-22-4	
Sodium, Dissolved	<b>3800</b> ug/L		50.0	1	05/09/12 09:32	05/14/12 17:22	7440-23-5	
Thallium, Dissolved	ND ug/L		0.10	1	05/09/12 09:32	05/14/12 17:22	7440-28-0	
Vanadium, Dissolved	ND ug/L		0.10	1	05/09/12 09:32	05/14/12 17:22	7440-62-2	
Zinc, Dissolved	<b>32.3</b> ug/L		5.0	1	05/09/12 09:32	05/14/12 17:22	7440-66-6	
<b>200.8 Potentially Diss. Metals</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum, Dissolved	<b>678</b> ug/L		50.0	1	05/01/12 13:00	05/02/12 17:22	7429-90-5	
Antimony, Dissolved	<b>0.14J</b> ug/L		1.0	1	05/01/12 13:00	05/11/12 18:26	7440-36-0	
Arsenic, Dissolved	<b>2.1</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 14:41	7440-38-2	
Barium, Dissolved	<b>29.1</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 14:41	7440-39-3	
Beryllium, Dissolved	ND ug/L		0.50	1	05/01/12 13:00	05/02/12 17:22	7440-41-7	
Cadmium, Dissolved	<b>0.65</b> ug/L		0.50	1	05/01/12 13:00	05/02/12 14:41	7440-43-9	
Chromium, Dissolved	<b>2.1</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 14:41	7440-47-3	
Copper, Dissolved	<b>9.7</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 14:41	7440-50-8	
Iron, Dissolved	<b>1410</b> ug/L		50.0	1	05/01/12 13:00	05/02/12 14:41	7439-89-6	
Lead, Dissolved	<b>17.1</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 14:41	7439-92-1	
Manganese, Dissolved	<b>279</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 14:41	7439-96-5	
Nickel, Dissolved	<b>2.6</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 14:41	7440-02-0	
Selenium, Dissolved	<b>10.0</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 14:41	7782-49-2	
Silver, Dissolved	<b>0.11J</b> ug/L		0.50	1	05/01/12 13:00	05/02/12 14:41	7440-22-4	
Thallium, Dissolved	<b>0.040J</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 14:41	7440-28-0	
Vanadium, Dissolved	<b>0.99J</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 14:41	7440-62-2	
Zinc, Dissolved	<b>92.9</b> ug/L		10.0	1	05/01/12 13:00	05/02/12 14:41	7440-66-6	
<b>245.1 Mercury</b>	Analytical Method: EPA 245.1							
Mercury	ND ug/L		0.20	1	04/30/12 00:00	05/03/12 14:31	7439-97-6	
<b>245.1 Mercury, Dissolved</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury, Dissolved	ND ug/L		0.20	1	05/15/12 10:45	05/15/12 14:49	7439-97-6	
<b>2510B Specific Conductance</b>	Analytical Method: SM 2510B							
Specific Conductance	<b>868</b> umhos/cm		10.0	1			04/30/12 17:51	
<b>Salinity</b>	Analytical Method: Calculated							
Salinity (as dissolved solids)	<b>556</b> mg/L		6.0	1			05/02/12 09:41	
Salinity (as seawater)	<b>0.42</b> PSU		0.010	1			05/02/12 09:41	
<b>2320B Alkalinity</b>	Analytical Method: SM 2320B							
Alkalinity,Bicarbonate (CaCO3)	<b>176</b> mg/L		20.0	1			05/01/12 10:00	
Alkalinity, Carbonate (CaCO3)	ND mg/L		20.0	1			05/01/12 10:00	
Alkalinity, Total as CaCO3	<b>176</b> mg/L		20.0	1			05/01/12 10:00	
<b>2540C Total Dissolved Solids</b>	Analytical Method: SM 2540C							
Total Dissolved Solids	<b>613</b> mg/L		5.0	1			04/24/12 11:43	

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## ANALYTICAL RESULTS

Project: APRIL 2012 RICO WATER SAMPLING  
 Pace Project No.: 60119875

Sample: GW-3	Lab ID: 60119875013	Collected: 04/19/12 09:00	Received: 04/21/12 08:40	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>2540D Total Suspended Solids</b>	Analytical Method: SM 2540D							
Total Suspended Solids	<b>628</b>	mg/L	5.0	1		04/24/12 08:33		
<b>300.0 IC Anions 28 Days</b>	Analytical Method: EPA 300.0							
Sulfate	<b>272</b>	mg/L	50.0	50		04/27/12 21:21	14808-79-8	
<b>4500CNE Cyanide, Total</b>	Analytical Method: SM 4500-CN-E							
Cyanide	<b>0.018</b>	mg/L	0.0050	1		04/27/12 22:13	57-12-5	

## ANALYTICAL RESULTS

Project: APRIL 2012 RICO WATER SAMPLING

Pace Project No.: 60119875

Sample: GW-4	Lab ID: 60119875014	Collected: 04/19/12 09:15	Received: 04/21/12 08:40	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.7 Potentially Diss. Metals</b>	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7							
Calcium, Dissolved	<b>165000</b> ug/L		100	1	05/01/12 13:00	05/01/12 20:57	7440-70-2	
Magnesium, Dissolved	<b>19800</b> ug/L		50.0	1	05/01/12 13:00	05/01/12 20:57	7439-95-4	
Potassium, Dissolved	<b>1360</b> ug/L		500	1	05/01/12 13:00	05/01/12 20:57	7440-09-7	
Sodium, Dissolved	<b>4670</b> ug/L		500	1	05/01/12 13:00	05/01/12 20:57	7440-23-5	
<b>200.8 MET ICPMS</b>	Analytical Method: EPA 200.8							
Aluminum	<b>3200</b> ug/L		4.0	1	05/01/12 06:08	05/03/12 19:23	7429-90-5	
Antimony	ND ug/L		0.50	1	05/01/12 06:08	05/03/12 19:23	7440-36-0	
Arsenic	<b>3.4</b> ug/L		0.50	1	05/01/12 06:08	05/03/12 19:23	7440-38-2	
Barium	<b>67.1</b> ug/L		0.30	1	05/01/12 06:08	05/03/12 19:23	7440-39-3	
Beryllium	ND ug/L		0.20	1	05/01/12 06:08	05/03/12 19:23	7440-41-7	
Cadmium	<b>1.4</b> ug/L		0.080	1	05/01/12 06:08	05/03/12 19:23	7440-43-9	
Calcium	<b>159000</b> ug/L		400	20	05/01/12 06:08	05/03/12 19:28	7440-70-2	
Chromium	<b>4.9</b> ug/L		0.50	1	05/01/12 06:08	05/03/12 19:23	7440-47-3	
Copper	<b>16.6</b> ug/L		0.50	1	05/01/12 06:08	05/03/12 19:23	7440-50-8	
Iron	<b>6660</b> ug/L		50.0	1	05/01/12 06:08	05/03/12 19:23	7439-89-6	
Lead	<b>34.1</b> ug/L		0.10	1	05/01/12 06:08	05/03/12 19:23	7439-92-1	
Magnesium	<b>21400</b> ug/L		5.0	1	05/01/12 06:08	05/03/12 19:23	7439-95-4	
Manganese	<b>528</b> ug/L		10.0	20	05/01/12 06:08	05/03/12 19:28	7439-96-5	
Nickel	<b>3.7</b> ug/L		0.50	1	05/01/12 06:08	05/03/12 19:23	7440-02-0	
Potassium	<b>2020</b> ug/L		20.0	1	05/01/12 06:08	05/03/12 19:23	7440-09-7	
Selenium	ND ug/L		0.50	1	05/01/12 06:08	05/03/12 19:23	7782-49-2	
Silver	ND ug/L		0.50	1	05/01/12 06:08	05/03/12 19:23	7440-22-4	
Sodium	<b>4960</b> ug/L		50.0	1	05/01/12 06:08	05/03/12 19:23	7440-23-5	
Thallium	<b>0.10</b> ug/L		0.10	1	05/01/12 06:08	05/03/12 19:23	7440-28-0	
Total Hardness by 2340B	<b>484000</b> ug/L		1420	20	05/01/12 06:08	05/03/12 19:28		
Vanadium	<b>6.4</b> ug/L		0.10	1	05/01/12 06:08	05/03/12 19:23	7440-62-2	
Zinc	<b>163</b> ug/L		5.0	1	05/01/12 06:08	05/03/12 19:23	7440-66-6	
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8							
Aluminum, Dissolved	<b>8.2</b> ug/L		4.0	1	05/09/12 09:32	05/14/12 17:33	7429-90-5	
Antimony, Dissolved	ND ug/L		0.50	1	05/09/12 09:32	05/14/12 17:33	7440-36-0	
Arsenic, Dissolved	ND ug/L		0.50	1	05/09/12 09:32	05/14/12 17:33	7440-38-2	
Barium, Dissolved	<b>22.5</b> ug/L		0.30	1	05/09/12 09:32	05/14/12 17:33	7440-39-3	
Beryllium, Dissolved	ND ug/L		0.20	1	05/09/12 09:32	05/14/12 17:33	7440-41-7	
Cadmium, Dissolved	<b>0.56</b> ug/L		0.080	1	05/09/12 09:32	05/14/12 17:33	7440-43-9	
Calcium, Dissolved	<b>164000</b> ug/L		500	25	05/09/12 09:32	05/14/12 17:39	7440-70-2	
Chromium, Dissolved	<b>1.1</b> ug/L		0.50	1	05/09/12 09:32	05/14/12 17:33	7440-47-3	
Copper, Dissolved	<b>0.62</b> ug/L		0.50	1	05/09/12 09:32	05/14/12 17:33	7440-50-8	
Iron, Dissolved	ND ug/L		50.0	1	05/09/12 09:32	05/14/12 17:33	7439-89-6	
Lead, Dissolved	ND ug/L		0.10	1	05/09/12 09:32	05/14/12 17:33	7439-92-1	
Magnesium, Dissolved	<b>18900</b> ug/L		5.0	1	05/09/12 09:32	05/14/12 17:33	7439-95-4	
Manganese, Dissolved	<b>444</b> ug/L		2.5	5	05/09/12 09:32	05/16/12 02:11	7439-96-5	B
Nickel, Dissolved	<b>1.2</b> ug/L		0.50	1	05/09/12 09:32	05/14/12 17:33	7440-02-0	
Potassium, Dissolved	<b>1470</b> ug/L		20.0	1	05/09/12 09:32	05/14/12 17:33	7440-09-7	
Selenium, Dissolved	ND ug/L		0.50	1	05/09/12 09:32	05/14/12 17:33	7782-49-2	

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## ANALYTICAL RESULTS

Project: APRIL 2012 RICO WATER SAMPLING

Pace Project No.: 60119875

Sample: GW-4	Lab ID: 60119875014	Collected: 04/19/12 09:15	Received: 04/21/12 08:40	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8							
Silver, Dissolved	ND ug/L		0.50	1	05/09/12 09:32	05/14/12 17:33	7440-22-4	
Sodium, Dissolved	<b>4680</b> ug/L		50.0	1	05/09/12 09:32	05/14/12 17:33	7440-23-5	
Thallium, Dissolved	ND ug/L		0.10	1	05/09/12 09:32	05/14/12 17:33	7440-28-0	
Vanadium, Dissolved	ND ug/L		0.10	1	05/09/12 09:32	05/14/12 17:33	7440-62-2	
Zinc, Dissolved	<b>49.9</b> ug/L		5.0	1	05/09/12 09:32	05/14/12 17:33	7440-66-6	
<b>200.8 Potentially Diss. Metals</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum, Dissolved	<b>8.3J</b> ug/L		50.0	1	05/01/12 13:00	05/02/12 17:24	7429-90-5	
Antimony, Dissolved	<b>0.10J</b> ug/L		1.0	1	05/01/12 13:00	05/11/12 18:29	7440-36-0	
Arsenic, Dissolved	<b>0.48J</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 14:45	7440-38-2	
Barium, Dissolved	<b>20.5</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 14:45	7440-39-3	
Beryllium, Dissolved	ND ug/L		0.50	1	05/01/12 13:00	05/02/12 17:24	7440-41-7	
Cadmium, Dissolved	<b>0.17J</b> ug/L		0.50	1	05/01/12 13:00	05/02/12 14:45	7440-43-9	
Chromium, Dissolved	<b>0.96J</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 14:45	7440-47-3	
Copper, Dissolved	<b>0.65J</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 14:45	7440-50-8	
Iron, Dissolved	<b>798</b> ug/L		50.0	1	05/01/12 13:00	05/02/12 14:45	7439-89-6	
Lead, Dissolved	<b>3.5</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 14:45	7439-92-1	
Manganese, Dissolved	<b>465</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 14:45	7439-96-5	
Nickel, Dissolved	<b>0.72J</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 14:45	7440-02-0	
Selenium, Dissolved	ND ug/L		1.0	1	05/01/12 13:00	05/02/12 14:45	7782-49-2	
Silver, Dissolved	ND ug/L		0.50	1	05/01/12 13:00	05/02/12 14:45	7440-22-4	
Thallium, Dissolved	ND ug/L		1.0	1	05/01/12 13:00	05/02/12 14:45	7440-28-0	
Vanadium, Dissolved	ND ug/L		1.0	1	05/01/12 13:00	05/02/12 14:45	7440-62-2	
Zinc, Dissolved	<b>33.3</b> ug/L		10.0	1	05/01/12 13:00	05/02/12 14:45	7440-66-6	
<b>245.1 Mercury</b>	Analytical Method: EPA 245.1							
Mercury	ND ug/L		0.20	1	04/30/12 00:00	05/03/12 14:33	7439-97-6	
<b>245.1 Mercury, Dissolved</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury, Dissolved	ND ug/L		0.20	1	05/15/12 10:45	05/15/12 14:51	7439-97-6	
<b>2510B Specific Conductance</b>	Analytical Method: SM 2510B							
Specific Conductance	<b>890</b> umhos/cm		10.0	1			04/30/12 17:42	
<b>Salinity</b>	Analytical Method: Calculated							
Salinity (as dissolved solids)	<b>569</b> mg/L		6.0	1			05/02/12 09:41	
Salinity (as seawater)	<b>0.44</b> PSU		0.010	1			05/02/12 09:41	
<b>2320B Alkalinity</b>	Analytical Method: SM 2320B							
Alkalinity,Bicarbonate (CaCO3)	<b>142</b> mg/L		20.0	1			05/01/12 10:00	
Alkalinity, Carbonate (CaCO3)	ND mg/L		20.0	1			05/01/12 10:00	
Alkalinity, Total as CaCO3	<b>142</b> mg/L		20.0	1			05/01/12 10:00	
<b>2540C Total Dissolved Solids</b>	Analytical Method: SM 2540C							
Total Dissolved Solids	<b>687</b> mg/L		5.0	1			04/24/12 11:43	

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## ANALYTICAL RESULTS

Project: APRIL 2012 RICO WATER SAMPLING  
Pace Project No.: 60119875

Sample: GW-4	Lab ID: 60119875014	Collected: 04/19/12 09:15	Received: 04/21/12 08:40	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>2540D Total Suspended Solids</b>	Analytical Method: SM 2540D							
Total Suspended Solids	198	mg/L	5.0	1		04/24/12 08:33		
<b>300.0 IC Anions 28 Days</b>	Analytical Method: EPA 300.0							
Sulfate	323	mg/L	50.0	50		04/27/12 22:12	14808-79-8	
<b>4500CNE Cyanide, Total</b>	Analytical Method: SM 4500-CN-E							
Cyanide	ND	mg/L	0.0050	1		05/02/12 18:27	57-12-5	

## ANALYTICAL RESULTS

Project: APRIL 2012 RICO WATER SAMPLING

Pace Project No.: 60119875

Sample: GW-5	Lab ID: 60119875015	Collected: 04/19/12 09:45	Received: 04/21/12 08:40	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.7 Potentially Diss. Metals</b>	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7							
Calcium, Dissolved	<b>484000</b> ug/L		5000	50	05/01/12 13:00	05/02/12 11:02	7440-70-2	
Magnesium, Dissolved	<b>43800</b> ug/L		50.0	1	05/01/12 13:00	05/01/12 21:00	7439-95-4	
Potassium, Dissolved	<b>8580</b> ug/L		500	1	05/01/12 13:00	05/01/12 21:00	7440-09-7	
Sodium, Dissolved	<b>5630</b> ug/L		500	1	05/01/12 13:00	05/01/12 21:00	7440-23-5	
<b>200.8 MET ICPMS</b>	Analytical Method: EPA 200.8							
Aluminum	<b>1240</b> ug/L		4.0	1	05/01/12 06:08	05/03/12 19:32	7429-90-5	
Antimony	<b>0.80</b> ug/L		0.50	1	05/01/12 06:08	05/03/12 19:32	7440-36-0	
Arsenic	<b>317</b> ug/L		0.50	1	05/01/12 06:08	05/03/12 19:32	7440-38-2	
Barium	<b>26.5</b> ug/L		0.30	1	05/01/12 06:08	05/03/12 19:32	7440-39-3	
Beryllium	<b>0.55</b> ug/L		0.20	1	05/01/12 06:08	05/03/12 19:32	7440-41-7	
Cadmium	<b>11.2</b> ug/L		0.080	1	05/01/12 06:08	05/03/12 19:32	7440-43-9	
Calcium	<b>576000</b> ug/L		4000	200	05/01/12 06:08	05/04/12 12:46	7440-70-2	
Chromium	<b>1.6</b> ug/L		0.50	1	05/01/12 06:08	05/03/12 19:32	7440-47-3	
Copper	<b>132</b> ug/L		0.50	1	05/01/12 06:08	05/03/12 19:32	7440-50-8	
Iron	<b>37500</b> ug/L		1000	20	05/01/12 06:08	05/03/12 19:37	7439-89-6	
Lead	<b>3040</b> ug/L		2.0	20	05/01/12 06:08	05/03/12 19:37	7439-92-1	
Magnesium	<b>45400</b> ug/L		100	20	05/01/12 06:08	05/03/12 19:37	7439-95-4	
Manganese	<b>12600</b> ug/L		100	200	05/01/12 06:08	05/04/12 12:46	7439-96-5	
Nickel	<b>65.7</b> ug/L		0.50	1	05/01/12 06:08	05/03/12 19:32	7440-02-0	
Potassium	<b>8790</b> ug/L		20.0	1	05/01/12 06:08	05/03/12 19:32	7440-09-7	
Selenium	<b>0.64</b> ug/L		0.50	1	05/01/12 06:08	05/03/12 19:32	7782-49-2	
Silver	<b>3.8</b> ug/L		0.50	1	05/01/12 06:08	05/03/12 19:32	7440-22-4	
Sodium	<b>5740</b> ug/L		50.0	1	05/01/12 06:08	05/03/12 19:32	7440-23-5	
Thallium	<b>0.54</b> ug/L		0.10	1	05/01/12 06:08	05/03/12 19:32	7440-28-0	
Total Hardness by 2340B	<b>1630000</b> ug/L		14200	200	05/01/12 06:08	05/04/12 12:46		
Vanadium	<b>1.6</b> ug/L		0.10	1	05/01/12 06:08	05/03/12 19:32	7440-62-2	
Zinc	<b>51500</b> ug/L		1000	200	05/01/12 06:08	05/04/12 12:46	7440-66-6	
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8							
Aluminum, Dissolved	<b>5.8</b> ug/L		4.0	1	05/09/12 09:32	05/16/12 15:11	7429-90-5	
Antimony, Dissolved	ND ug/L		0.50	1	05/09/12 09:32	05/14/12 17:43	7440-36-0	
Arsenic, Dissolved	ND ug/L		0.50	1	05/09/12 09:32	05/14/12 17:43	7440-38-2	
Barium, Dissolved	<b>20.6</b> ug/L		0.30	1	05/09/12 09:32	05/14/12 17:43	7440-39-3	
Beryllium, Dissolved	ND ug/L		0.20	1	05/09/12 09:32	05/14/12 17:43	7440-41-7	
Cadmium, Dissolved	<b>4.5</b> ug/L		0.080	1	05/09/12 09:32	05/14/12 17:43	7440-43-9	
Calcium, Dissolved	<b>501000</b> ug/L		500	25	05/09/12 09:32	05/14/12 17:49	7440-70-2	
Chromium, Dissolved	<b>1.2</b> ug/L		0.50	1	05/09/12 09:32	05/14/12 17:43	7440-47-3	
Copper, Dissolved	ND ug/L		0.50	1	05/09/12 09:32	05/14/12 17:43	7440-50-8	
Iron, Dissolved	<b>307</b> ug/L		50.0	1	05/09/12 09:32	05/14/12 17:43	7439-89-6	
Lead, Dissolved	<b>0.30</b> ug/L		0.10	1	05/09/12 09:32	05/14/12 17:43	7439-92-1	
Magnesium, Dissolved	<b>42700</b> ug/L		25.0	5	05/09/12 09:32	05/14/12 17:46	7439-95-4	
Manganese, Dissolved	<b>11000</b> ug/L		12.5	25	05/09/12 09:32	05/14/12 17:49	7439-96-5	B
Nickel, Dissolved	<b>64.8</b> ug/L		0.50	1	05/09/12 09:32	05/14/12 17:43	7440-02-0	
Potassium, Dissolved	<b>8810</b> ug/L		20.0	1	05/09/12 09:32	05/14/12 17:43	7440-09-7	
Selenium, Dissolved	ND ug/L		0.50	1	05/09/12 09:32	05/14/12 17:43	7782-49-2	

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## ANALYTICAL RESULTS

Project: APRIL 2012 RICO WATER SAMPLING

Pace Project No.: 60119875

Sample: GW-5	Lab ID: 60119875015	Collected: 04/19/12 09:45	Received: 04/21/12 08:40	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8							
Silver, Dissolved	ND ug/L		0.50	1	05/09/12 09:32	05/14/12 17:43	7440-22-4	
Sodium, Dissolved	<b>5230</b> ug/L		50.0	1	05/09/12 09:32	05/14/12 17:43	7440-23-5	
Thallium, Dissolved	<b>0.29</b> ug/L		0.10	1	05/09/12 09:32	05/14/12 17:43	7440-28-0	
Vanadium, Dissolved	ND ug/L		0.10	1	05/09/12 09:32	05/14/12 17:43	7440-62-2	
Zinc, Dissolved	<b>40300</b> ug/L		500	100	05/09/12 09:32	05/16/12 02:18	7440-66-6	
<b>200.8 Potentially Diss. Metals</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum, Dissolved	<b>254</b> ug/L		50.0	1	05/01/12 13:00	05/02/12 17:36	7429-90-5	
Antimony, Dissolved	<b>0.15J</b> ug/L		1.0	1	05/01/12 13:00	05/11/12 18:38	7440-36-0	
Arsenic, Dissolved	<b>68.5</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 15:10	7440-38-2	
Barium, Dissolved	<b>21.1</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 15:10	7440-39-3	
Beryllium, Dissolved	<b>0.27J</b> ug/L		0.50	1	05/01/12 13:00	05/02/12 17:36	7440-41-7	
Cadmium, Dissolved	<b>6.0</b> ug/L		0.50	1	05/01/12 13:00	05/02/12 15:10	7440-43-9	
Chromium, Dissolved	<b>1.3</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 15:10	7440-47-3	
Copper, Dissolved	<b>16.0</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 15:10	7440-50-8	
Iron, Dissolved	<b>22700</b> ug/L		50.0	1	05/01/12 13:00	05/02/12 15:10	7439-89-6	
Lead, Dissolved	<b>570</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 15:10	7439-92-1	
Manganese, Dissolved	<b>11800</b> ug/L		200	200	05/01/12 13:00	05/02/12 15:35	7439-96-5	
Nickel, Dissolved	<b>64.5</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 15:10	7440-02-0	
Selenium, Dissolved	ND ug/L		1.0	1	05/01/12 13:00	05/02/12 15:10	7782-49-2	
Silver, Dissolved	<b>0.11J</b> ug/L		0.50	1	05/01/12 13:00	05/02/12 15:10	7440-22-4	
Thallium, Dissolved	<b>0.41J</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 15:10	7440-28-0	
Vanadium, Dissolved	ND ug/L		1.0	1	05/01/12 13:00	05/02/12 15:10	7440-62-2	
Zinc, Dissolved	<b>45400</b> ug/L		2000	200	05/01/12 13:00	05/02/12 15:35	7440-66-6	
<b>245.1 Mercury</b>	Analytical Method: EPA 245.1							
Mercury	ND ug/L		0.20	1	04/30/12 00:00	05/03/12 14:39	7439-97-6	
<b>245.1 Mercury, Dissolved</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury, Dissolved	ND ug/L		0.20	1	05/15/12 10:45	05/15/12 14:53	7439-97-6	
<b>2510B Specific Conductance</b>	Analytical Method: SM 2510B							
Specific Conductance	<b>2340</b> umhos/cm		10.0	1			04/30/12 17:54	
<b>Salinity</b>	Analytical Method: Calculated							
Salinity (as dissolved solids)	<b>1500</b> mg/L		6.0	1			05/02/12 09:41	
Salinity (as seawater)	<b>1.2</b> PSU		0.010	1			05/02/12 09:41	
<b>2320B Alkalinity</b>	Analytical Method: SM 2320B							
Alkalinity,Bicarbonate (CaCO3)	<b>108</b> mg/L		20.0	1			05/01/12 10:00	
Alkalinity, Carbonate (CaCO3)	ND mg/L		20.0	1			05/01/12 10:00	
Alkalinity, Total as CaCO3	<b>108</b> mg/L		20.0	1			05/01/12 10:00	
<b>2540C Total Dissolved Solids</b>	Analytical Method: SM 2540C							
Total Dissolved Solids	<b>2370</b> mg/L		5.0	1			04/24/12 11:44	

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## ANALYTICAL RESULTS

Project: APRIL 2012 RICO WATER SAMPLING  
Pace Project No.: 60119875

Sample: GW-5	Lab ID: 60119875015	Collected: 04/19/12 09:45	Received: 04/21/12 08:40	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>2540D Total Suspended Solids</b>	Analytical Method: SM 2540D							
Total Suspended Solids	140	mg/L	5.0	1		04/24/12 08:33		
<b>300.0 IC Anions 28 Days</b>	Analytical Method: EPA 300.0							
Sulfate	1410	mg/L	100	100		04/27/12 22:29	14808-79-8	
<b>4500CNE Cyanide, Total</b>	Analytical Method: SM 4500-CN-E							
Cyanide	ND	mg/L	0.0050	1		05/02/12 18:29	57-12-5	

## ANALYTICAL RESULTS

Project: APRIL 2012 RICO WATER SAMPLING

Pace Project No.: 60119875

Sample: GW-7	Lab ID: 60119875016	Collected: 04/19/12 10:00	Received: 04/21/12 08:40	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.7 Potentially Diss. Metals</b>	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7							
Calcium, Dissolved	<b>283000</b> ug/L		100	1	05/01/12 13:00	05/01/12 21:04	7440-70-2	
Magnesium, Dissolved	<b>31100</b> ug/L		50.0	1	05/01/12 13:00	05/01/12 21:04	7439-95-4	
Potassium, Dissolved	<b>2460</b> ug/L		500	1	05/01/12 13:00	05/01/12 21:04	7440-09-7	
Sodium, Dissolved	<b>7260</b> ug/L		500	1	05/01/12 13:00	05/01/12 21:04	7440-23-5	
<b>200.8 MET ICPMS</b>	Analytical Method: EPA 200.8							
Aluminum	<b>1240</b> ug/L		4.0	1	05/01/12 06:08	05/03/12 19:42	7429-90-5	
Antimony	ND ug/L		0.50	1	05/01/12 06:08	05/03/12 19:42	7440-36-0	
Arsenic	<b>1.0</b> ug/L		0.50	1	05/01/12 06:08	05/03/12 19:42	7440-38-2	
Barium	<b>14.2</b> ug/L		0.30	1	05/01/12 06:08	05/03/12 19:42	7440-39-3	
Beryllium	<b>0.23</b> ug/L		0.20	1	05/01/12 06:08	05/03/12 19:42	7440-41-7	
Cadmium	<b>7.9</b> ug/L		0.080	1	05/01/12 06:08	05/03/12 19:42	7440-43-9	
Calcium	<b>273000</b> ug/L		400	20	05/01/12 06:08	05/03/12 19:46	7440-70-2	
Chromium	<b>1.3</b> ug/L		0.50	1	05/01/12 06:08	05/03/12 19:42	7440-47-3	
Copper	<b>20.7</b> ug/L		0.50	1	05/01/12 06:08	05/03/12 19:42	7440-50-8	
Iron	<b>4060</b> ug/L		50.0	1	05/01/12 06:08	05/03/12 19:42	7439-89-6	
Lead	<b>81.0</b> ug/L		0.10	1	05/01/12 06:08	05/03/12 19:42	7439-92-1	
Magnesium	<b>31400</b> ug/L		100	20	05/01/12 06:08	05/03/12 19:46	7439-95-4	
Manganese	<b>676</b> ug/L		10.0	20	05/01/12 06:08	05/03/12 19:46	7439-96-5	
Nickel	<b>9.0</b> ug/L		0.50	1	05/01/12 06:08	05/03/12 19:42	7440-02-0	
Potassium	<b>2540</b> ug/L		20.0	1	05/01/12 06:08	05/03/12 19:42	7440-09-7	
Selenium	<b>1.8</b> ug/L		0.50	1	05/01/12 06:08	05/03/12 19:42	7782-49-2	
Silver	ND ug/L		0.50	1	05/01/12 06:08	05/03/12 19:42	7440-22-4	
Sodium	<b>7520</b> ug/L		50.0	1	05/01/12 06:08	05/03/12 19:42	7440-23-5	
Thallium	<b>0.10</b> ug/L		0.10	1	05/01/12 06:08	05/03/12 19:42	7440-28-0	
Total Hardness by 2340B	<b>811000</b> ug/L		1420	20	05/01/12 06:08	05/03/12 19:46		
Vanadium	<b>0.55</b> ug/L		0.10	1	05/01/12 06:08	05/03/12 19:42	7440-62-2	
Zinc	<b>769</b> ug/L		100	20	05/01/12 06:08	05/03/12 19:46	7440-66-6	
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8							
Aluminum, Dissolved	<b>37.1</b> ug/L		4.0	1	05/09/12 09:32	05/14/12 18:03	7429-90-5	
Antimony, Dissolved	ND ug/L		0.50	1	05/09/12 09:32	05/14/12 18:03	7440-36-0	
Arsenic, Dissolved	ND ug/L		0.50	1	05/09/12 09:32	05/14/12 18:03	7440-38-2	
Barium, Dissolved	<b>13.0</b> ug/L		0.30	1	05/09/12 09:32	05/14/12 18:03	7440-39-3	
Beryllium, Dissolved	ND ug/L		0.20	1	05/09/12 09:32	05/14/12 18:03	7440-41-7	
Cadmium, Dissolved	<b>6.8</b> ug/L		0.080	1	05/09/12 09:32	05/14/12 18:03	7440-43-9	
Calcium, Dissolved	<b>282000</b> ug/L		500	25	05/09/12 09:32	05/14/12 18:10	7440-70-2	
Chromium, Dissolved	<b>1.1</b> ug/L		0.50	1	05/09/12 09:32	05/14/12 18:03	7440-47-3	
Copper, Dissolved	<b>2.2</b> ug/L		0.50	1	05/09/12 09:32	05/14/12 18:03	7440-50-8	
Iron, Dissolved	ND ug/L		50.0	1	05/09/12 09:32	05/14/12 18:03	7439-89-6	
Lead, Dissolved	<b>0.22</b> ug/L		0.10	1	05/09/12 09:32	05/14/12 18:03	7439-92-1	
Magnesium, Dissolved	<b>29700</b> ug/L		25.0	5	05/09/12 09:32	05/14/12 18:07	7439-95-4	
Manganese, Dissolved	<b>696</b> ug/L		2.5	5	05/09/12 09:32	05/16/12 15:14	7439-96-5	B
Nickel, Dissolved	<b>9.1</b> ug/L		0.50	1	05/09/12 09:32	05/14/12 18:03	7440-02-0	
Potassium, Dissolved	<b>2570</b> ug/L		20.0	1	05/09/12 09:32	05/14/12 18:03	7440-09-7	
Selenium, Dissolved	<b>0.93</b> ug/L		0.50	1	05/09/12 09:32	05/14/12 18:03	7782-49-2	

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## ANALYTICAL RESULTS

Project: APRIL 2012 RICO WATER SAMPLING

Pace Project No.: 60119875

Sample: GW-7	Lab ID: 60119875016	Collected: 04/19/12 10:00	Received: 04/21/12 08:40	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8							
Silver, Dissolved	ND ug/L		0.50	1	05/09/12 09:32	05/14/12 18:03	7440-22-4	
Sodium, Dissolved	<b>6970</b> ug/L		50.0	1	05/09/12 09:32	05/14/12 18:03	7440-23-5	
Thallium, Dissolved	ND ug/L		0.10	1	05/09/12 09:32	05/14/12 18:03	7440-28-0	
Vanadium, Dissolved	ND ug/L		0.10	1	05/09/12 09:32	05/14/12 18:03	7440-62-2	
Zinc, Dissolved	<b>760</b> ug/L		25.0	5	05/09/12 09:32	05/14/12 18:07	7440-66-6	
<b>200.8 Potentially Diss. Metals</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum, Dissolved	<b>380</b> ug/L		50.0	1	05/01/12 13:00	05/02/12 17:38	7429-90-5	
Antimony, Dissolved	<b>0.11J</b> ug/L		1.0	1	05/01/12 13:00	05/11/12 18:41	7440-36-0	
Arsenic, Dissolved	<b>0.27J</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 15:14	7440-38-2	
Barium, Dissolved	<b>12.9</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 15:14	7440-39-3	
Beryllium, Dissolved	<b>0.15J</b> ug/L		0.50	1	05/01/12 13:00	05/02/12 17:38	7440-41-7	
Cadmium, Dissolved	<b>7.7</b> ug/L		0.50	1	05/01/12 13:00	05/02/12 15:14	7440-43-9	
Chromium, Dissolved	<b>0.98J</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 15:14	7440-47-3	
Copper, Dissolved	<b>7.6</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 15:14	7440-50-8	
Iron, Dissolved	<b>1510</b> ug/L		50.0	1	05/01/12 13:00	05/02/12 15:14	7439-89-6	
Lead, Dissolved	<b>6.4</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 15:14	7439-92-1	
Manganese, Dissolved	<b>696</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 15:14	7439-96-5	
Nickel, Dissolved	<b>8.3</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 15:14	7440-02-0	
Selenium, Dissolved	<b>1.1</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 15:14	7782-49-2	
Silver, Dissolved	ND ug/L		0.50	1	05/01/12 13:00	05/02/12 15:14	7440-22-4	
Thallium, Dissolved	<b>0.10J</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 15:14	7440-28-0	
Vanadium, Dissolved	ND ug/L		1.0	1	05/01/12 13:00	05/02/12 15:14	7440-62-2	
Zinc, Dissolved	<b>707</b> ug/L		10.0	1	05/01/12 13:00	05/02/12 15:14	7440-66-6	
<b>245.1 Mercury</b>	Analytical Method: EPA 245.1							
Mercury	ND ug/L		0.20	1	04/30/12 00:00	05/03/12 14:41	7439-97-6	
<b>245.1 Mercury, Dissolved</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury, Dissolved	ND ug/L		0.20	1	05/15/12 10:45	05/15/12 15:02	7439-97-6	
<b>2510B Specific Conductance</b>	Analytical Method: SM 2510B							
Specific Conductance	<b>1430</b> umhos/cm		10.0	1			04/30/12 17:55	
<b>Salinity</b>	Analytical Method: Calculated							
Salinity (as dissolved solids)	<b>916</b> mg/L		6.0	1			05/02/12 09:41	
Salinity (as seawater)	<b>0.72</b> PSU		0.010	1			05/02/12 09:41	
<b>2320B Alkalinity</b>	Analytical Method: SM 2320B							
Alkalinity,Bicarbonate (CaCO3)	<b>214</b> mg/L		20.0	1			05/01/12 10:00	
Alkalinity, Carbonate (CaCO3)	ND mg/L		20.0	1			05/01/12 10:00	
Alkalinity, Total as CaCO3	<b>214</b> mg/L		20.0	1			05/01/12 10:00	
<b>2540C Total Dissolved Solids</b>	Analytical Method: SM 2540C							
Total Dissolved Solids	<b>1150</b> mg/L		5.0	1			04/25/12 10:13	

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## ANALYTICAL RESULTS

Project: APRIL 2012 RICO WATER SAMPLING  
Pace Project No.: 60119875

Sample: GW-7	Lab ID: 60119875016	Collected: 04/19/12 10:00	Received: 04/21/12 08:40	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>2540D Total Suspended Solids</b>	Analytical Method: SM 2540D							
Total Suspended Solids	<b>33.0</b>	mg/L	5.0	1		04/24/12 08:33		
<b>300.0 IC Anions 28 Days</b>	Analytical Method: EPA 300.0							
Sulfate	<b>588</b>	mg/L	50.0	50		04/27/12 22:46	14808-79-8	
<b>4500CNE Cyanide, Total</b>	Analytical Method: SM 4500-CN-E							
Cyanide	ND	mg/L	0.0050	1		05/02/12 18:32	57-12-5	

## ANALYTICAL RESULTS

Project: APRIL 2012 RICO WATER SAMPLING

Pace Project No.: 60119875

Sample: MW-1 SHALLOW	Lab ID: 60119875017	Collected: 04/19/12 11:15	Received: 04/21/12 08:40	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.7 Potentially Diss. Metals</b>	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7							
Calcium, Dissolved	<b>247000</b> ug/L		100	1	05/01/12 13:00	05/01/12 21:07	7440-70-2	
Magnesium, Dissolved	<b>21300</b> ug/L		50.0	1	05/01/12 13:00	05/01/12 21:07	7439-95-4	
Potassium, Dissolved	<b>1430</b> ug/L		500	1	05/01/12 13:00	05/01/12 21:07	7440-09-7	
Sodium, Dissolved	<b>10700</b> ug/L		500	1	05/01/12 13:00	05/01/12 21:07	7440-23-5	
<b>200.8 MET ICPMS</b>	Analytical Method: EPA 200.8							
Aluminum	<b>4830</b> ug/L		4.0	1	05/01/12 06:08	05/03/12 19:51	7429-90-5	
Antimony	ND ug/L		0.50	1	05/01/12 06:08	05/03/12 19:51	7440-36-0	
Arsenic	<b>4.1</b> ug/L		0.50	1	05/01/12 06:08	05/03/12 19:51	7440-38-2	
Barium	<b>78.8</b> ug/L		0.30	1	05/01/12 06:08	05/03/12 19:51	7440-39-3	
Beryllium	<b>0.49</b> ug/L		0.20	1	05/01/12 06:08	05/03/12 19:51	7440-41-7	
Cadmium	<b>0.70</b> ug/L		0.080	1	05/01/12 06:08	05/03/12 19:51	7440-43-9	
Calcium	<b>233000</b> ug/L		400	20	05/01/12 06:08	05/03/12 19:56	7440-70-2	
Chromium	<b>4.9</b> ug/L		0.50	1	05/01/12 06:08	05/03/12 19:51	7440-47-3	
Copper	<b>17.8</b> ug/L		0.50	1	05/01/12 06:08	05/03/12 19:51	7440-50-8	
Iron	<b>6020</b> ug/L		50.0	1	05/01/12 06:08	05/03/12 19:51	7439-89-6	
Lead	<b>38.1</b> ug/L		0.10	1	05/01/12 06:08	05/03/12 19:51	7439-92-1	
Magnesium	<b>22100</b> ug/L		100	20	05/01/12 06:08	05/03/12 19:56	7439-95-4	
Manganese	<b>315</b> ug/L		0.50	1	05/01/12 06:08	05/03/12 19:51	7439-96-5	
Nickel	<b>3.6</b> ug/L		0.50	1	05/01/12 06:08	05/03/12 19:51	7440-02-0	
Potassium	<b>2340</b> ug/L		20.0	1	05/01/12 06:08	05/03/12 19:51	7440-09-7	
Selenium	<b>13.8</b> ug/L		0.50	1	05/01/12 06:08	05/03/12 19:51	7782-49-2	
Silver	ND ug/L		0.50	1	05/01/12 06:08	05/03/12 19:51	7440-22-4	
Sodium	<b>10800</b> ug/L		50.0	1	05/01/12 06:08	05/03/12 19:51	7440-23-5	
Thallium	<b>0.14</b> ug/L		0.10	1	05/01/12 06:08	05/03/12 19:51	7440-28-0	
Total Hardness by 2340B	<b>672000</b> ug/L		1420	20	05/01/12 06:08	05/03/12 19:56		
Vanadium	<b>6.6</b> ug/L		0.10	1	05/01/12 06:08	05/03/12 19:51	7440-62-2	
Zinc	<b>112</b> ug/L		5.0	1	05/01/12 06:08	05/03/12 19:51	7440-66-6	
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8							
Aluminum, Dissolved	<b>5.8</b> ug/L		4.0	1	05/09/12 09:32	05/16/12 15:18	7429-90-5	
Antimony, Dissolved	ND ug/L		0.50	1	05/09/12 09:32	05/14/12 18:13	7440-36-0	
Arsenic, Dissolved	ND ug/L		0.50	1	05/09/12 09:32	05/14/12 18:13	7440-38-2	
Barium, Dissolved	<b>21.1</b> ug/L		0.30	1	05/09/12 09:32	05/14/12 18:13	7440-39-3	
Beryllium, Dissolved	ND ug/L		0.20	1	05/09/12 09:32	05/14/12 18:13	7440-41-7	
Cadmium, Dissolved	<b>0.36</b> ug/L		0.080	1	05/09/12 09:32	05/14/12 18:13	7440-43-9	
Calcium, Dissolved	<b>244000</b> ug/L		500	25	05/09/12 09:32	05/14/12 18:20	7440-70-2	
Chromium, Dissolved	<b>1.1</b> ug/L		0.50	1	05/09/12 09:32	05/14/12 18:13	7440-47-3	
Copper, Dissolved	<b>1.7</b> ug/L		0.50	1	05/09/12 09:32	05/14/12 18:13	7440-50-8	
Iron, Dissolved	ND ug/L		50.0	1	05/09/12 09:32	05/14/12 18:13	7439-89-6	
Lead, Dissolved	ND ug/L		0.10	1	05/09/12 09:32	05/14/12 18:13	7439-92-1	
Magnesium, Dissolved	<b>20300</b> ug/L		5.0	1	05/09/12 09:32	05/14/12 18:13	7439-95-4	
Manganese, Dissolved	<b>6.1</b> ug/L		0.50	1	05/09/12 09:32	05/16/12 15:18	7439-96-5	B
Nickel, Dissolved	<b>0.55</b> ug/L		0.50	1	05/09/12 09:32	05/14/12 18:13	7440-02-0	
Potassium, Dissolved	<b>1540</b> ug/L		20.0	1	05/09/12 09:32	05/14/12 18:13	7440-09-7	
Selenium, Dissolved	<b>12.4</b> ug/L		0.50	1	05/09/12 09:32	05/14/12 18:13	7782-49-2	

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## ANALYTICAL RESULTS

Project: APRIL 2012 RICO WATER SAMPLING

Pace Project No.: 60119875

Sample: MW-1 SHALLOW	Lab ID: 60119875017	Collected: 04/19/12 11:15	Received: 04/21/12 08:40	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8							
Silver, Dissolved	ND ug/L		0.50	1	05/09/12 09:32	05/14/12 18:13	7440-22-4	
Sodium, Dissolved	<b>10500</b> ug/L		50.0	1	05/09/12 09:32	05/14/12 18:13	7440-23-5	
Thallium, Dissolved	ND ug/L		0.10	1	05/09/12 09:32	05/14/12 18:13	7440-28-0	
Vanadium, Dissolved	ND ug/L		0.10	1	05/09/12 09:32	05/14/12 18:13	7440-62-2	
Zinc, Dissolved	<b>83.6</b> ug/L		5.0	1	05/09/12 09:32	05/14/12 18:13	7440-66-6	
<b>200.8 Potentially Diss. Metals</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum, Dissolved	<b>104</b> ug/L		50.0	1	05/01/12 13:00	05/02/12 17:40	7429-90-5	
Antimony, Dissolved	<b>0.14J</b> ug/L		1.0	1	05/01/12 13:00	05/11/12 18:44	7440-36-0	
Arsenic, Dissolved	<b>0.94J</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 15:18	7440-38-2	
Barium, Dissolved	<b>23.1</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 15:18	7440-39-3	
Beryllium, Dissolved	ND ug/L		0.50	1	05/01/12 13:00	05/02/12 17:40	7440-41-7	
Cadmium, Dissolved	<b>0.29J</b> ug/L		0.50	1	05/01/12 13:00	05/02/12 15:18	7440-43-9	
Chromium, Dissolved	<b>0.74J</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 15:18	7440-47-3	
Copper, Dissolved	<b>3.0</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 15:18	7440-50-8	
Iron, Dissolved	<b>190</b> ug/L		50.0	1	05/01/12 13:00	05/02/12 15:18	7439-89-6	
Lead, Dissolved	<b>4.4</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 15:18	7439-92-1	
Manganese, Dissolved	<b>15.5</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 15:18	7439-96-5	
Nickel, Dissolved	<b>1.8</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 15:18	7440-02-0	
Selenium, Dissolved	<b>12.4</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 15:18	7782-49-2	
Silver, Dissolved	ND ug/L		0.50	1	05/01/12 13:00	05/02/12 15:18	7440-22-4	
Thallium, Dissolved	<b>0.029J</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 15:18	7440-28-0	
Vanadium, Dissolved	ND ug/L		1.0	1	05/01/12 13:00	05/02/12 15:18	7440-62-2	
Zinc, Dissolved	<b>47.9</b> ug/L		10.0	1	05/01/12 13:00	05/02/12 15:18	7440-66-6	
<b>245.1 Mercury</b>	Analytical Method: EPA 245.1							
Mercury	ND ug/L		0.20	1	04/30/12 00:00	05/03/12 14:43	7439-97-6	
<b>245.1 Mercury, Dissolved</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury, Dissolved	ND ug/L		0.20	1	05/15/12 10:45	05/15/12 15:04	7439-97-6	
<b>2510B Specific Conductance</b>	Analytical Method: SM 2510B							
Specific Conductance	<b>1200</b> umhos/cm		10.0	1			04/30/12 18:00	
<b>Salinity</b>	Analytical Method: Calculated							
Salinity (as dissolved solids)	<b>771</b> mg/L		6.0	1			05/02/12 09:41	
Salinity (as seawater)	<b>0.60</b> PSU		0.010	1			05/02/12 09:41	
<b>2320B Alkalinity</b>	Analytical Method: SM 2320B							
Alkalinity,Bicarbonate (CaCO3)	<b>94.0</b> mg/L		20.0	1			05/01/12 10:00	
Alkalinity, Carbonate (CaCO3)	ND mg/L		20.0	1			05/01/12 10:00	
Alkalinity, Total as CaCO3	<b>94.0</b> mg/L		20.0	1			05/01/12 10:00	
<b>2540C Total Dissolved Solids</b>	Analytical Method: SM 2540C							
Total Dissolved Solids	<b>993</b> mg/L		5.0	1			04/25/12 10:14	

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## ANALYTICAL RESULTS

Project: APRIL 2012 RICO WATER SAMPLING  
Pace Project No.: 60119875

Sample: MW-1 SHALLOW	Lab ID: 60119875017	Collected: 04/19/12 11:15	Received: 04/21/12 08:40	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>2540D Total Suspended Solids</b>	Analytical Method: SM 2540D							
Total Suspended Solids	213	mg/L	5.0	1		04/24/12 08:34		
<b>300.0 IC Anions 28 Days</b>	Analytical Method: EPA 300.0							
Sulfate	616	mg/L	50.0	50		04/27/12 23:04	14808-79-8	
<b>4500CNE Cyanide, Total</b>	Analytical Method: SM 4500-CN-E							
Cyanide	ND	mg/L	0.0050	1		05/02/12 18:32	57-12-5	

## ANALYTICAL RESULTS

Project: APRIL 2012 RICO WATER SAMPLING

Pace Project No.: 60119875

Sample: MW-1 DEEP	Lab ID: 60119875018	Collected: 04/19/12 11:20	Received: 04/21/12 08:40	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.7 Potentially Diss. Metals</b>	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7							
Calcium, Dissolved	<b>240000</b> ug/L		100	1	05/01/12 13:00	05/01/12 21:11	7440-70-2	
Magnesium, Dissolved	<b>20200</b> ug/L		50.0	1	05/01/12 13:00	05/01/12 21:11	7439-95-4	
Potassium, Dissolved	<b>1540</b> ug/L		500	1	05/01/12 13:00	05/01/12 21:11	7440-09-7	
Sodium, Dissolved	<b>10900</b> ug/L		500	1	05/01/12 13:00	05/01/12 21:11	7440-23-5	
<b>200.8 MET ICPMS</b>	Analytical Method: EPA 200.8							
Aluminum	<b>55.4</b> ug/L		4.0	1	05/01/12 06:08	05/03/12 20:00	7429-90-5	
Antimony	ND ug/L		0.50	1	05/01/12 06:08	05/03/12 20:00	7440-36-0	
Arsenic	ND ug/L		0.50	1	05/01/12 06:08	05/03/12 20:00	7440-38-2	
Barium	<b>14.9</b> ug/L		0.30	1	05/01/12 06:08	05/03/12 20:00	7440-39-3	
Beryllium	ND ug/L		0.20	1	05/01/12 06:08	05/03/12 20:00	7440-41-7	
Cadmium	<b>2.4</b> ug/L		0.080	1	05/01/12 06:08	05/03/12 20:00	7440-43-9	
Calcium	<b>235000</b> ug/L		400	20	05/01/12 06:08	05/03/12 20:05	7440-70-2	
Chromium	<b>0.78</b> ug/L		0.50	1	05/01/12 06:08	05/03/12 20:00	7440-47-3	
Copper	<b>4.1</b> ug/L		0.50	1	05/01/12 06:08	05/03/12 20:00	7440-50-8	
Iron	<b>247</b> ug/L		50.0	1	05/01/12 06:08	05/03/12 20:00	7439-89-6	
Lead	<b>2.5</b> ug/L		0.10	1	05/01/12 06:08	05/03/12 20:00	7439-92-1	
Magnesium	<b>20500</b> ug/L		5.0	1	05/01/12 06:08	05/03/12 20:00	7439-95-4	
Manganese	<b>13.3</b> ug/L		0.50	1	05/01/12 06:08	05/03/12 20:00	7439-96-5	
Nickel	<b>0.50</b> ug/L		0.50	1	05/01/12 06:08	05/03/12 20:00	7440-02-0	
Potassium	<b>1600</b> ug/L		20.0	1	05/01/12 06:08	05/03/12 20:00	7440-09-7	
Selenium	<b>9.4</b> ug/L		0.50	1	05/01/12 06:08	05/03/12 20:00	7782-49-2	
Silver	ND ug/L		0.50	1	05/01/12 06:08	05/03/12 20:00	7440-22-4	
Sodium	<b>11600</b> ug/L		50.0	1	05/01/12 06:08	05/03/12 20:00	7440-23-5	
Thallium	ND ug/L		0.10	1	05/01/12 06:08	05/03/12 20:00	7440-28-0	
Total Hardness by 2340B	<b>672000</b> ug/L		1420	20	05/01/12 06:08	05/03/12 20:05		
Vanadium	<b>0.10</b> ug/L		0.10	1	05/01/12 06:08	05/03/12 20:00	7440-62-2	
Zinc	<b>541</b> ug/L		100	20	05/01/12 06:08	05/03/12 20:05	7440-66-6	
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8							
Aluminum, Dissolved	<b>8.9</b> ug/L		4.0	1	05/09/12 09:32	05/14/12 18:24	7429-90-5	
Antimony, Dissolved	ND ug/L		0.50	1	05/09/12 09:32	05/14/12 18:24	7440-36-0	
Arsenic, Dissolved	ND ug/L		0.50	1	05/09/12 09:32	05/14/12 18:24	7440-38-2	
Barium, Dissolved	<b>14.1</b> ug/L		0.30	1	05/09/12 09:32	05/14/12 18:24	7440-39-3	
Beryllium, Dissolved	ND ug/L		0.20	1	05/09/12 09:32	05/14/12 18:24	7440-41-7	
Cadmium, Dissolved	<b>2.2</b> ug/L		0.080	1	05/09/12 09:32	05/14/12 18:24	7440-43-9	
Calcium, Dissolved	<b>238000</b> ug/L		500	25	05/09/12 09:32	05/14/12 18:30	7440-70-2	
Chromium, Dissolved	<b>1.3</b> ug/L		0.50	1	05/09/12 09:32	05/14/12 18:24	7440-47-3	
Copper, Dissolved	<b>2.0</b> ug/L		0.50	1	05/09/12 09:32	05/14/12 18:24	7440-50-8	
Iron, Dissolved	ND ug/L		50.0	1	05/09/12 09:32	05/14/12 18:24	7439-89-6	
Lead, Dissolved	ND ug/L		0.10	1	05/09/12 09:32	05/14/12 18:24	7439-92-1	
Magnesium, Dissolved	<b>18900</b> ug/L		5.0	1	05/09/12 09:32	05/14/12 18:24	7439-95-4	
Manganese, Dissolved	<b>3.9</b> ug/L		0.50	1	05/09/12 09:32	05/16/12 15:21	7439-96-5	B
Nickel, Dissolved	<b>0.71</b> ug/L		0.50	1	05/09/12 09:32	05/14/12 18:24	7440-02-0	
Potassium, Dissolved	<b>1640</b> ug/L		20.0	1	05/09/12 09:32	05/14/12 18:24	7440-09-7	
Selenium, Dissolved	<b>8.9</b> ug/L		0.50	1	05/09/12 09:32	05/14/12 18:24	7782-49-2	

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## ANALYTICAL RESULTS

Project: APRIL 2012 RICO WATER SAMPLING

Pace Project No.: 60119875

Sample: MW-1 DEEP	Lab ID: 60119875018	Collected: 04/19/12 11:20	Received: 04/21/12 08:40	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8							
Silver, Dissolved	ND ug/L		0.50	1	05/09/12 09:32	05/14/12 18:24	7440-22-4	
Sodium, Dissolved	<b>10600</b> ug/L		50.0	1	05/09/12 09:32	05/14/12 18:24	7440-23-5	
Thallium, Dissolved	ND ug/L		0.10	1	05/09/12 09:32	05/14/12 18:24	7440-28-0	
Vanadium, Dissolved	ND ug/L		0.10	1	05/09/12 09:32	05/14/12 18:24	7440-62-2	
Zinc, Dissolved	<b>526</b> ug/L		25.0	5	05/09/12 09:32	05/14/12 18:27	7440-66-6	
<b>200.8 Potentially Diss. Metals</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum, Dissolved	ND ug/L		50.0	1	05/01/12 13:00	05/02/12 17:43	7429-90-5	
Antimony, Dissolved	<b>0.18J</b> ug/L		1.0	1	05/01/12 13:00	05/11/12 18:47	7440-36-0	
Arsenic, Dissolved	<b>0.94J</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 15:23	7440-38-2	
Barium, Dissolved	<b>13.9</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 15:23	7440-39-3	
Beryllium, Dissolved	ND ug/L		0.50	1	05/01/12 13:00	05/02/12 17:43	7440-41-7	
Cadmium, Dissolved	<b>2.4</b> ug/L		0.50	1	05/01/12 13:00	05/02/12 15:23	7440-43-9	
Chromium, Dissolved	<b>0.59J</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 15:23	7440-47-3	
Copper, Dissolved	<b>2.6</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 15:23	7440-50-8	
Iron, Dissolved	<b>33.8J</b> ug/L		50.0	1	05/01/12 13:00	05/02/12 15:23	7439-89-6	
Lead, Dissolved	<b>3.4</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 15:23	7439-92-1	
Manganese, Dissolved	<b>4.3</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 15:23	7439-96-5	
Nickel, Dissolved	ND ug/L		1.0	1	05/01/12 13:00	05/02/12 15:23	7440-02-0	
Selenium, Dissolved	<b>9.1</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 15:23	7782-49-2	
Silver, Dissolved	ND ug/L		0.50	1	05/01/12 13:00	05/02/12 15:23	7440-22-4	
Thallium, Dissolved	<b>0.042J</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 15:23	7440-28-0	
Vanadium, Dissolved	ND ug/L		1.0	1	05/01/12 13:00	05/02/12 15:23	7440-62-2	
Zinc, Dissolved	<b>517</b> ug/L		10.0	1	05/01/12 13:00	05/02/12 15:23	7440-66-6	
<b>245.1 Mercury</b>	Analytical Method: EPA 245.1							
Mercury	ND ug/L		0.20	1	04/30/12 00:00	05/03/12 14:45	7439-97-6	
<b>245.1 Mercury, Dissolved</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury, Dissolved	ND ug/L		0.20	1	05/15/12 10:45	05/15/12 15:07	7439-97-6	
<b>2510B Specific Conductance</b>	Analytical Method: SM 2510B							
Specific Conductance	<b>1220</b> umhos/cm		10.0	1			04/30/12 18:03	
<b>Salinity</b>	Analytical Method: Calculated							
Salinity (as dissolved solids)	<b>780</b> mg/L		6.0	1			05/02/12 09:41	
Salinity (as seawater)	<b>0.60</b> PSU		0.010	1			05/02/12 09:41	
<b>2320B Alkalinity</b>	Analytical Method: SM 2320B							
Alkalinity,Bicarbonate (CaCO3)	<b>94.0</b> mg/L		20.0	1			05/01/12 10:00	
Alkalinity, Carbonate (CaCO3)	ND mg/L		20.0	1			05/01/12 10:00	
Alkalinity, Total as CaCO3	<b>94.0</b> mg/L		20.0	1			05/01/12 10:00	
<b>2540C Total Dissolved Solids</b>	Analytical Method: SM 2540C							
Total Dissolved Solids	<b>1010</b> mg/L		5.0	1			04/25/12 10:14	

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## ANALYTICAL RESULTS

Project: APRIL 2012 RICO WATER SAMPLING  
Pace Project No.: 60119875

Sample: MW-1 DEEP	Lab ID: 60119875018	Collected: 04/19/12 11:20	Received: 04/21/12 08:40	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>2540D Total Suspended Solids</b>	Analytical Method: SM 2540D							
Total Suspended Solids	ND	mg/L	5.0	1		04/24/12 08:34		
<b>300.0 IC Anions 28 Days</b>	Analytical Method: EPA 300.0							
Sulfate	576	mg/L	50.0	50		04/27/12 23:21	14808-79-8	
<b>4500CNE Cyanide, Total</b>	Analytical Method: SM 4500-CN-E							
Cyanide	ND	mg/L	0.0050	1		05/02/12 18:36	57-12-5	

## ANALYTICAL RESULTS

Project: APRIL 2012 RICO WATER SAMPLING

Pace Project No.: 60119875

Sample: MW-2 DEEP	Lab ID: 60119875019	Collected: 04/19/12 10:10	Received: 04/21/12 08:40	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.7 Potentially Diss. Metals</b>	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7							
Calcium, Dissolved	<b>249000</b> ug/L		100	1	05/01/12 13:00	05/01/12 21:15	7440-70-2	
Magnesium, Dissolved	<b>21800</b> ug/L		50.0	1	05/01/12 13:00	05/01/12 21:15	7439-95-4	
Potassium, Dissolved	<b>1660</b> ug/L		500	1	05/01/12 13:00	05/01/12 21:15	7440-09-7	
Sodium, Dissolved	<b>9270</b> ug/L		500	1	05/01/12 13:00	05/01/12 21:15	7440-23-5	
<b>200.8 MET ICPMS</b>	Analytical Method: EPA 200.8							
Aluminum	<b>146</b> ug/L		4.0	1	05/01/12 06:08	05/03/12 20:19	7429-90-5	
Antimony	ND ug/L		0.50	1	05/01/12 06:08	05/03/12 20:19	7440-36-0	
Arsenic	ND ug/L		0.50	1	05/01/12 06:08	05/03/12 20:19	7440-38-2	
Barium	<b>14.5</b> ug/L		0.30	1	05/01/12 06:08	05/03/12 20:19	7440-39-3	
Beryllium	ND ug/L		0.20	1	05/01/12 06:08	05/03/12 20:19	7440-41-7	
Cadmium	<b>1.1</b> ug/L		0.080	1	05/01/12 06:08	05/03/12 20:19	7440-43-9	
Calcium	<b>242000</b> ug/L		400	20	05/01/12 06:08	05/03/12 20:24	7440-70-2	
Chromium	<b>0.71</b> ug/L		0.50	1	05/01/12 06:08	05/03/12 20:19	7440-47-3	
Copper	<b>1.7</b> ug/L		0.50	1	05/01/12 06:08	05/03/12 20:19	7440-50-8	
Iron	<b>298</b> ug/L		50.0	1	05/01/12 06:08	05/03/12 20:19	7439-89-6	
Lead	<b>2.2</b> ug/L		0.10	1	05/01/12 06:08	05/03/12 20:19	7439-92-1	
Magnesium	<b>22100</b> ug/L		5.0	1	05/01/12 06:08	05/03/12 20:19	7439-95-4	
Manganese	<b>14.0</b> ug/L		0.50	1	05/01/12 06:08	05/03/12 20:19	7439-96-5	
Nickel	ND ug/L		0.50	1	05/01/12 06:08	05/03/12 20:19	7440-02-0	
Potassium	<b>1680</b> ug/L		20.0	1	05/01/12 06:08	05/03/12 20:19	7440-09-7	
Selenium	<b>1.2</b> ug/L		0.50	1	05/01/12 06:08	05/03/12 20:19	7782-49-2	
Silver	ND ug/L		0.50	1	05/01/12 06:08	05/03/12 20:19	7440-22-4	
Sodium	<b>9380</b> ug/L		50.0	1	05/01/12 06:08	05/03/12 20:19	7440-23-5	
Thallium	ND ug/L		0.10	1	05/01/12 06:08	05/03/12 20:19	7440-28-0	
Total Hardness by 2340B	<b>695000</b> ug/L		1420	20	05/01/12 06:08	05/03/12 20:24		
Vanadium	<b>0.26</b> ug/L		0.10	1	05/01/12 06:08	05/03/12 20:19	7440-62-2	
Zinc	<b>31.2</b> ug/L		5.0	1	05/01/12 06:08	05/03/12 20:19	7440-66-6	
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8							
Aluminum, Dissolved	<b>7.3</b> ug/L		4.0	1	05/09/12 09:29	05/14/12 14:00	7429-90-5	
Antimony, Dissolved	ND ug/L		0.50	1	05/09/12 09:29	05/14/12 14:00	7440-36-0	
Arsenic, Dissolved	ND ug/L		0.50	1	05/09/12 09:29	05/14/12 14:00	7440-38-2	
Barium, Dissolved	<b>13.0</b> ug/L		0.30	1	05/09/12 09:29	05/14/12 14:00	7440-39-3	
Beryllium, Dissolved	ND ug/L		0.20	1	05/09/12 09:29	05/16/12 09:57	7440-41-7	
Cadmium, Dissolved	<b>1.1</b> ug/L		0.080	1	05/09/12 09:29	05/14/12 14:00	7440-43-9	
Calcium, Dissolved	<b>242000</b> ug/L		400	20	05/09/12 09:29	05/14/12 14:03	7440-70-2	
Chromium, Dissolved	ND ug/L		0.50	1	05/09/12 09:29	05/14/12 14:00	7440-47-3	
Copper, Dissolved	ND ug/L		0.50	1	05/09/12 09:29	05/14/12 14:00	7440-50-8	
Iron, Dissolved	ND ug/L		50.0	1	05/09/12 09:29	05/14/12 14:00	7439-89-6	
Lead, Dissolved	ND ug/L		0.10	1	05/09/12 09:29	05/14/12 14:00	7439-92-1	
Magnesium, Dissolved	<b>21000</b> ug/L		5.0	1	05/09/12 09:29	05/14/12 14:00	7439-95-4	
Manganese, Dissolved	<b>8.9</b> ug/L		0.50	1	05/09/12 09:29	05/14/12 14:00	7439-96-5	
Nickel, Dissolved	ND ug/L		0.50	1	05/09/12 09:29	05/14/12 14:00	7440-02-0	
Potassium, Dissolved	<b>1630</b> ug/L		20.0	1	05/09/12 09:29	05/14/12 14:00	7440-09-7	
Selenium, Dissolved	<b>1.3</b> ug/L		0.50	1	05/09/12 09:29	05/14/12 14:00	7782-49-2	

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## ANALYTICAL RESULTS

Project: APRIL 2012 RICO WATER SAMPLING

Pace Project No.: 60119875

Sample: MW-2 DEEP	Lab ID: 60119875019	Collected: 04/19/12 10:10	Received: 04/21/12 08:40	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8							
Silver, Dissolved	ND ug/L		0.50	1	05/09/12 09:29	05/14/12 14:00	7440-22-4	
Sodium, Dissolved	<b>9010</b> ug/L		50.0	1	05/09/12 09:29	05/14/12 14:00	7440-23-5	
Thallium, Dissolved	ND ug/L		0.10	1	05/09/12 09:29	05/14/12 14:00	7440-28-0	
Vanadium, Dissolved	ND ug/L		0.10	1	05/09/12 09:29	05/14/12 14:00	7440-62-2	
Zinc, Dissolved	<b>48.7</b> ug/L		5.0	1	05/09/12 09:29	05/14/12 14:00	7440-66-6	
<b>200.8 Potentially Diss. Metals</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum, Dissolved	<b>9.2J</b> ug/L		50.0	1	05/01/12 13:00	05/02/12 17:45	7429-90-5	
Antimony, Dissolved	<b>0.12J</b> ug/L		1.0	1	05/01/12 13:00	05/11/12 18:50	7440-36-0	
Arsenic, Dissolved	<b>0.32J</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 15:27	7440-38-2	
Barium, Dissolved	<b>12.3</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 15:27	7440-39-3	
Beryllium, Dissolved	ND ug/L		0.50	1	05/01/12 13:00	05/02/12 17:45	7440-41-7	
Cadmium, Dissolved	<b>1.1</b> ug/L		0.50	1	05/01/12 13:00	05/02/12 15:27	7440-43-9	
Chromium, Dissolved	<b>0.72J</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 15:27	7440-47-3	
Copper, Dissolved	<b>0.84J</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 15:27	7440-50-8	
Iron, Dissolved	<b>48.4J</b> ug/L		50.0	1	05/01/12 13:00	05/02/12 15:27	7439-89-6	
Lead, Dissolved	<b>1.5</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 15:27	7439-92-1	
Manganese, Dissolved	<b>9.7</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 15:27	7439-96-5	
Nickel, Dissolved	ND ug/L		1.0	1	05/01/12 13:00	05/02/12 15:27	7440-02-0	
Selenium, Dissolved	<b>1.3</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 15:27	7782-49-2	
Silver, Dissolved	ND ug/L		0.50	1	05/01/12 13:00	05/02/12 15:27	7440-22-4	
Thallium, Dissolved	<b>0.062J</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 15:27	7440-28-0	
Vanadium, Dissolved	ND ug/L		1.0	1	05/01/12 13:00	05/02/12 15:27	7440-62-2	
Zinc, Dissolved	<b>23.4</b> ug/L		10.0	1	05/01/12 13:00	05/02/12 15:27	7440-66-6	
<b>245.1 Mercury</b>	Analytical Method: EPA 245.1							
Mercury	ND ug/L		0.20	1	04/30/12 00:00	05/03/12 14:47	7439-97-6	M1
<b>245.1 Mercury, Dissolved</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury, Dissolved	ND ug/L		0.20	1	05/15/12 10:45	05/15/12 15:09	7439-97-6	
<b>2510B Specific Conductance</b>	Analytical Method: SM 2510B							
Specific Conductance	<b>1300</b> umhos/cm		10.0	1			04/30/12 18:05	
<b>Salinity</b>	Analytical Method: Calculated							
Salinity (as dissolved solids)	<b>833</b> mg/L		6.0	1			05/02/12 09:41	
Salinity (as seawater)	<b>0.65</b> PSU		0.010	1			05/02/12 09:41	
<b>2320B Alkalinity</b>	Analytical Method: SM 2320B							
Alkalinity,Bicarbonate (CaCO3)	<b>94.0</b> mg/L		20.0	1			05/01/12 10:00	
Alkalinity, Carbonate (CaCO3)	ND mg/L		20.0	1			05/01/12 10:00	
Alkalinity, Total as CaCO3	<b>94.0</b> mg/L		20.0	1			05/01/12 10:00	
<b>2540C Total Dissolved Solids</b>	Analytical Method: SM 2540C							
Total Dissolved Solids	<b>1030</b> mg/L		5.0	1			04/25/12 10:14	

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## ANALYTICAL RESULTS

Project: APRIL 2012 RICO WATER SAMPLING  
 Pace Project No.: 60119875

Sample: MW-2 DEEP	Lab ID: 60119875019	Collected: 04/19/12 10:10	Received: 04/21/12 08:40	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>2540D Total Suspended Solids</b>	Analytical Method: SM 2540D							
Total Suspended Solids	11.0	mg/L	5.0	1		04/24/12 08:34		
<b>300.0 IC Anions 28 Days</b>	Analytical Method: EPA 300.0							
Sulfate	635	mg/L	50.0	50		04/27/12 23:38	14808-79-8	
<b>4500CNE Cyanide, Total</b>	Analytical Method: SM 4500-CN-E							
Cyanide	ND	mg/L	0.0050	1		05/02/12 18:37	57-12-5	

## ANALYTICAL RESULTS

Project: APRIL 2012 RICO WATER SAMPLING

Pace Project No.: 60119875

Sample: MW-3 DEEP	Lab ID: 60119875020	Collected: 04/19/12 10:15	Received: 04/21/12 08:40	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.7 Potentially Diss. Metals</b>	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7							
Calcium, Dissolved	<b>227000</b> ug/L		100	1	05/01/12 13:00	05/01/12 21:25	7440-70-2	
Magnesium, Dissolved	<b>22200</b> ug/L		50.0	1	05/01/12 13:00	05/01/12 21:25	7439-95-4	
Potassium, Dissolved	<b>1980</b> ug/L		500	1	05/01/12 13:00	05/01/12 21:25	7440-09-7	
Sodium, Dissolved	<b>9950</b> ug/L		500	1	05/01/12 13:00	05/01/12 21:25	7440-23-5	
<b>200.8 MET ICPMS</b>	Analytical Method: EPA 200.8							
Aluminum	<b>68.8</b> ug/L		4.0	1	04/26/12 09:37	05/02/12 02:53	7429-90-5	M1
Antimony	ND ug/L		0.50	1	04/26/12 09:37	05/02/12 02:53	7440-36-0	
Arsenic	<b>0.75</b> ug/L		0.50	1	04/26/12 09:37	05/02/12 02:53	7440-38-2	
Barium	<b>16.8</b> ug/L		0.30	1	04/26/12 09:37	05/02/12 02:53	7440-39-3	
Beryllium	ND ug/L		0.20	1	04/26/12 09:37	05/02/12 02:53	7440-41-7	
Cadmium	<b>0.15</b> ug/L		0.080	1	04/26/12 09:37	05/02/12 02:53	7440-43-9	
Calcium	<b>244000</b> ug/L		500	25	04/26/12 09:37	05/03/12 12:12	7440-70-2	
Chromium	<b>0.74</b> ug/L		0.50	1	04/26/12 09:37	05/02/12 02:53	7440-47-3	
Copper	<b>2.6</b> ug/L		0.50	1	04/26/12 09:37	05/02/12 02:53	7440-50-8	
Iron	<b>2160</b> ug/L		50.0	1	04/26/12 09:37	05/02/12 02:53	7439-89-6	
Lead	<b>2.2</b> ug/L		0.10	1	04/26/12 09:37	05/02/12 02:53	7439-92-1	
Magnesium	<b>21500</b> ug/L		5.0	1	04/26/12 09:37	05/02/12 02:53	7439-95-4	
Manganese	<b>880</b> ug/L		2.5	5	04/26/12 09:37	05/02/12 02:56	7439-96-5	M1
Nickel	<b>0.56</b> ug/L		0.50	1	04/26/12 09:37	05/02/12 02:53	7440-02-0	
Potassium	<b>2120</b> ug/L		20.0	1	04/26/12 09:37	05/02/12 02:53	7440-09-7	
Selenium	ND ug/L		0.50	1	04/26/12 09:37	05/02/12 02:53	7782-49-2	
Silver	<b>0.57</b> ug/L		0.50	1	04/26/12 09:37	05/02/12 02:53	7440-22-4	
Sodium	<b>10300</b> ug/L		50.0	1	04/26/12 09:37	05/02/12 02:53	7440-23-5	M1
Thallium	ND ug/L		0.10	1	04/26/12 09:37	05/02/12 02:53	7440-28-0	
Total Hardness by 2340B	<b>697000</b> ug/L		1780	25	04/26/12 09:37	05/03/12 12:12		
Vanadium	<b>0.16</b> ug/L		0.10	1	04/26/12 09:37	05/02/12 02:53	7440-62-2	
Zinc	<b>67.6</b> ug/L		5.0	1	04/26/12 09:37	05/02/12 02:53	7440-66-6	
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8							
Aluminum, Dissolved	<b>5.3</b> ug/L		4.0	1	05/09/12 09:32	05/16/12 15:24	7429-90-5	
Antimony, Dissolved	ND ug/L		0.50	1	05/09/12 09:32	05/14/12 18:44	7440-36-0	
Arsenic, Dissolved	ND ug/L		0.50	1	05/09/12 09:32	05/14/12 18:44	7440-38-2	
Barium, Dissolved	<b>14.7</b> ug/L		0.30	1	05/09/12 09:32	05/14/12 18:44	7440-39-3	
Beryllium, Dissolved	ND ug/L		0.20	1	05/09/12 09:32	05/14/12 18:44	7440-41-7	
Cadmium, Dissolved	<b>0.15</b> ug/L		0.080	1	05/09/12 09:32	05/14/12 18:44	7440-43-9	
Calcium, Dissolved	<b>218000</b> ug/L		500	25	05/09/12 09:32	05/14/12 18:51	7440-70-2	
Chromium, Dissolved	<b>1.3</b> ug/L		0.50	1	05/09/12 09:32	05/14/12 18:44	7440-47-3	
Copper, Dissolved	ND ug/L		0.50	1	05/09/12 09:32	05/14/12 18:44	7440-50-8	
Iron, Dissolved	ND ug/L		50.0	1	05/09/12 09:32	05/14/12 18:44	7439-89-6	
Lead, Dissolved	ND ug/L		0.10	1	05/09/12 09:32	05/14/12 18:44	7439-92-1	
Magnesium, Dissolved	<b>20400</b> ug/L		5.0	1	05/09/12 09:32	05/14/12 18:44	7439-95-4	
Manganese, Dissolved	<b>878</b> ug/L		2.5	5	05/09/12 09:32	05/16/12 15:28	7439-96-5	B
Nickel, Dissolved	ND ug/L		0.50	1	05/09/12 09:32	05/14/12 18:44	7440-02-0	
Potassium, Dissolved	<b>2030</b> ug/L		20.0	1	05/09/12 09:32	05/14/12 18:44	7440-09-7	
Selenium, Dissolved	ND ug/L		0.50	1	05/09/12 09:32	05/14/12 18:44	7782-49-2	

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## ANALYTICAL RESULTS

Project: APRIL 2012 RICO WATER SAMPLING

Pace Project No.: 60119875

Sample: MW-3 DEEP	Lab ID: 60119875020	Collected: 04/19/12 10:15	Received: 04/21/12 08:40	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8							
Silver, Dissolved	ND ug/L		0.50	1	05/09/12 09:32	05/14/12 18:44	7440-22-4	
Sodium, Dissolved	<b>9080</b> ug/L		50.0	1	05/09/12 09:32	05/14/12 18:44	7440-23-5	
Thallium, Dissolved	ND ug/L		0.10	1	05/09/12 09:32	05/14/12 18:44	7440-28-0	
Vanadium, Dissolved	ND ug/L		0.10	1	05/09/12 09:32	05/14/12 18:44	7440-62-2	
Zinc, Dissolved	<b>59.7</b> ug/L		5.0	1	05/09/12 09:32	05/14/12 18:44	7440-66-6	
<b>200.8 Potentially Diss. Metals</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum, Dissolved	ND ug/L		50.0	1	05/01/12 13:00	05/02/12 17:47	7429-90-5	
Antimony, Dissolved	ND ug/L		1.0	1	05/01/12 13:00	05/11/12 18:53	7440-36-0	
Arsenic, Dissolved	<b>0.54J</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 15:31	7440-38-2	
Barium, Dissolved	<b>15.4</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 15:31	7440-39-3	
Beryllium, Dissolved	ND ug/L		0.50	1	05/01/12 13:00	05/02/12 17:47	7440-41-7	
Cadmium, Dissolved	ND ug/L		0.50	1	05/01/12 13:00	05/02/12 15:31	7440-43-9	
Chromium, Dissolved	<b>0.61J</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 15:31	7440-47-3	
Copper, Dissolved	<b>0.90J</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 15:31	7440-50-8	
Iron, Dissolved	<b>1070</b> ug/L		50.0	1	05/01/12 13:00	05/02/12 15:31	7439-89-6	
Lead, Dissolved	<b>1.1</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 15:31	7439-92-1	
Manganese, Dissolved	<b>984</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 15:31	7439-96-5	
Nickel, Dissolved	ND ug/L		1.0	1	05/01/12 13:00	05/02/12 15:31	7440-02-0	
Selenium, Dissolved	ND ug/L		1.0	1	05/01/12 13:00	05/02/12 15:31	7782-49-2	
Silver, Dissolved	ND ug/L		0.50	1	05/01/12 13:00	05/02/12 15:31	7440-22-4	
Thallium, Dissolved	<b>0.054J</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 15:31	7440-28-0	
Vanadium, Dissolved	ND ug/L		1.0	1	05/01/12 13:00	05/02/12 15:31	7440-62-2	
Zinc, Dissolved	<b>52.8</b> ug/L		10.0	1	05/01/12 13:00	05/02/12 15:31	7440-66-6	
<b>245.1 Mercury</b>	Analytical Method: EPA 245.1							
Mercury	ND ug/L		0.20	1	04/26/12 00:00	05/07/12 15:17	7439-97-6	
<b>245.1 Mercury, Dissolved</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury, Dissolved	ND ug/L		0.20	1	05/15/12 10:45	05/15/12 15:11	7439-97-6	
<b>2510B Specific Conductance</b>	Analytical Method: SM 2510B							
Specific Conductance	<b>1190</b> umhos/cm		10.0	1			04/30/12 18:06	
<b>Salinity</b>	Analytical Method: Calculated							
Salinity (as dissolved solids)	<b>762</b> mg/L		6.0	1			05/02/12 09:41	
Salinity (as seawater)	<b>0.59</b> PSU		0.010	1			05/02/12 09:41	
<b>2320B Alkalinity</b>	Analytical Method: SM 2320B							
Alkalinity,Bicarbonate (CaCO3)	<b>90.0</b> mg/L		20.0	1			05/01/12 10:00	
Alkalinity, Carbonate (CaCO3)	ND mg/L		20.0	1			05/01/12 10:00	
Alkalinity, Total as CaCO3	<b>90.0</b> mg/L		20.0	1			05/01/12 10:00	
<b>2540C Total Dissolved Solids</b>	Analytical Method: SM 2540C							
Total Dissolved Solids	<b>972</b> mg/L		5.0	1			04/25/12 10:15	

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## ANALYTICAL RESULTS

Project: APRIL 2012 RICO WATER SAMPLING  
 Pace Project No.: 60119875

Sample: MW-3 DEEP	Lab ID: 60119875020	Collected: 04/19/12 10:15	Received: 04/21/12 08:40	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>2540D Total Suspended Solids</b>	Analytical Method: SM 2540D							
Total Suspended Solids	<b>6.0</b>	mg/L	5.0	1		04/24/12 08:34		
<b>300.0 IC Anions 28 Days</b>	Analytical Method: EPA 300.0							
Sulfate	<b>615</b>	mg/L	50.0	50		04/26/12 01:30	14808-79-8	
<b>4500CNE Cyanide, Total</b>	Analytical Method: SM 4500-CN-E							
Cyanide	ND	mg/L	0.0050	1		05/02/12 18:37	57-12-5	

## ANALYTICAL RESULTS

Project: APRIL 2012 RICO WATER SAMPLING

Pace Project No.: 60119875

Sample: EB-1	Lab ID: 60119875021	Collected: 04/19/12 09:30	Received: 04/21/12 08:40	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.7 Potentially Diss. Metals</b>	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7							
Calcium, Dissolved	<b>490000</b> ug/L		5000	50	05/01/12 13:00	05/02/12 11:06	7440-70-2	
Magnesium, Dissolved	<b>30600</b> ug/L		50.0	1	05/01/12 13:00	05/01/12 21:40	7439-95-4	
Potassium, Dissolved	<b>7000</b> ug/L		500	1	05/01/12 13:00	05/01/12 21:40	7440-09-7	
Sodium, Dissolved	<b>8360</b> ug/L		500	1	05/01/12 13:00	05/01/12 21:40	7440-23-5	
<b>200.8 MET ICPMS</b>	Analytical Method: EPA 200.8							
Aluminum	<b>134</b> ug/L		4.0	1	04/26/12 09:37	05/02/12 03:26	7429-90-5	
Antimony	ND ug/L		0.50	1	04/26/12 09:37	05/02/12 03:26	7440-36-0	
Arsenic	<b>5.9</b> ug/L		0.50	1	04/26/12 09:37	05/02/12 03:26	7440-38-2	
Barium	<b>14.1</b> ug/L		0.30	1	04/26/12 09:37	05/02/12 03:26	7440-39-3	
Beryllium	ND ug/L		0.20	1	04/26/12 09:37	05/02/12 03:26	7440-41-7	
Cadmium	<b>0.47</b> ug/L		0.080	1	04/26/12 09:37	05/02/12 03:26	7440-43-9	
Calcium	<b>554000</b> ug/L		1000	50	04/26/12 09:37	05/03/12 12:22	7440-70-2	
Chromium	<b>0.82</b> ug/L		0.50	1	04/26/12 09:37	05/02/12 03:26	7440-47-3	
Copper	<b>8.5</b> ug/L		0.50	1	04/26/12 09:37	05/02/12 03:26	7440-50-8	
Iron	<b>8800</b> ug/L		50.0	1	04/26/12 09:37	05/02/12 03:26	7439-89-6	
Lead	<b>33.0</b> ug/L		0.10	1	04/26/12 09:37	05/02/12 03:26	7439-92-1	
Magnesium	<b>32900</b> ug/L		50.0	10	04/26/12 09:37	05/02/12 03:30	7439-95-4	
Manganese	<b>5800</b> ug/L		25.0	50	04/26/12 09:37	05/02/12 03:33	7439-96-5	
Nickel	<b>7.9</b> ug/L		0.50	1	04/26/12 09:37	05/02/12 03:26	7440-02-0	
Potassium	<b>7450</b> ug/L		20.0	1	04/26/12 09:37	05/02/12 03:26	7440-09-7	
Selenium	ND ug/L		0.50	1	04/26/12 09:37	05/02/12 03:26	7782-49-2	
Silver	ND ug/L		0.50	1	04/26/12 09:37	05/02/12 03:26	7440-22-4	
Sodium	<b>8160</b> ug/L		50.0	1	04/26/12 09:37	05/02/12 03:26	7440-23-5	
Thallium	ND ug/L		0.10	1	04/26/12 09:37	05/02/12 03:26	7440-28-0	
Total Hardness by 2340B	<b>1520000</b> ug/L		3550	50	04/26/12 09:37	05/03/12 12:22		
Vanadium	<b>0.24</b> ug/L		0.10	1	04/26/12 09:37	05/02/12 03:26	7440-62-2	
Zinc	<b>1740</b> ug/L		50.0	10	04/26/12 09:37	05/02/12 03:30	7440-66-6	
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8							
Aluminum, Dissolved	<b>5.2</b> ug/L		4.0	1	05/09/12 09:29	05/14/12 12:22	7429-90-5	
Antimony, Dissolved	ND ug/L		0.50	1	05/09/12 09:29	05/14/12 12:22	7440-36-0	
Arsenic, Dissolved	ND ug/L		0.50	1	05/09/12 09:29	05/14/12 12:22	7440-38-2	
Barium, Dissolved	<b>12.2</b> ug/L		0.30	1	05/09/12 09:29	05/14/12 12:22	7440-39-3	
Beryllium, Dissolved	ND ug/L		0.20	1	05/09/12 09:29	05/16/12 09:06	7440-41-7	
Cadmium, Dissolved	<b>0.22</b> ug/L		0.080	1	05/09/12 09:29	05/14/12 12:22	7440-43-9	
Calcium, Dissolved	<b>328000</b> ug/L		1000	50	05/09/12 09:29	05/14/12 12:29	7440-70-2	
Chromium, Dissolved	ND ug/L		0.50	1	05/09/12 09:29	05/14/12 12:22	7440-47-3	
Copper, Dissolved	ND ug/L		0.50	1	05/09/12 09:29	05/14/12 12:22	7440-50-8	
Iron, Dissolved	ND ug/L		50.0	1	05/09/12 09:29	05/14/12 12:22	7439-89-6	
Lead, Dissolved	ND ug/L		0.10	1	05/09/12 09:29	05/14/12 12:22	7439-92-1	
Magnesium, Dissolved	<b>31500</b> ug/L		25.0	5	05/09/12 09:29	05/14/12 12:26	7439-95-4	M6
Manganese, Dissolved	<b>3640</b> ug/L		25.0	50	05/09/12 09:29	05/14/12 12:29	7439-96-5	
Nickel, Dissolved	ND ug/L		0.50	1	05/09/12 09:29	05/14/12 12:22	7440-02-0	
Potassium, Dissolved	<b>6960</b> ug/L		20.0	1	05/09/12 09:29	05/14/12 12:22	7440-09-7	
Selenium, Dissolved	<b>0.56</b> ug/L		0.50	1	05/09/12 09:29	05/14/12 12:22	7782-49-2	

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## ANALYTICAL RESULTS

Project: APRIL 2012 RICO WATER SAMPLING

Pace Project No.: 60119875

Sample: EB-1	Lab ID: 60119875021	Collected: 04/19/12 09:30	Received: 04/21/12 08:40	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8							
Silver, Dissolved	ND ug/L		0.50	1	05/09/12 09:29	05/14/12 12:22	7440-22-4	
Sodium, Dissolved	<b>8040</b> ug/L		50.0	1	05/09/12 09:29	05/14/12 12:22	7440-23-5	M6
Thallium, Dissolved	ND ug/L		0.10	1	05/09/12 09:29	05/14/12 12:22	7440-28-0	
Vanadium, Dissolved	ND ug/L		0.10	1	05/09/12 09:29	05/14/12 12:22	7440-62-2	
Zinc, Dissolved	<b>1410</b> ug/L		25.0	5	05/09/12 09:29	05/14/12 12:26	7440-66-6	M6
<b>200.8 Potentially Diss. Metals</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum, Dissolved	<b>8.2J</b> ug/L		50.0	1	05/01/12 13:00	05/02/12 19:08	7429-90-5	
Antimony, Dissolved	<b>0.13J</b> ug/L		1.0	1	05/01/12 13:00	05/11/12 19:16	7440-36-0	
Arsenic, Dissolved	<b>0.58J</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 19:08	7440-38-2	
Barium, Dissolved	<b>11.9</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 19:08	7440-39-3	
Beryllium, Dissolved	<b>0.13J</b> ug/L		0.50	1	05/01/12 13:00	05/02/12 19:08	7440-41-7	
Cadmium, Dissolved	ND ug/L		0.50	1	05/01/12 13:00	05/02/12 19:08	7440-43-9	
Chromium, Dissolved	<b>0.96J</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 19:08	7440-47-3	
Copper, Dissolved	<b>0.66J</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 19:08	7440-50-8	
Iron, Dissolved	<b>6570</b> ug/L		50.0	1	05/01/12 13:00	05/02/12 19:08	7439-89-6	
Lead, Dissolved	1.3 ug/L		1.0	1	05/01/12 13:00	05/02/12 19:08	7439-92-1	
Manganese, Dissolved	<b>5420</b> ug/L		100	100	05/01/12 13:00	05/03/12 08:02	7439-96-5	
Nickel, Dissolved	<b>4.1</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 19:08	7440-02-0	
Selenium, Dissolved	ND ug/L		1.0	1	05/01/12 13:00	05/03/12 11:18	7782-49-2	
Silver, Dissolved	ND ug/L		0.50	1	05/01/12 13:00	05/02/12 19:08	7440-22-4	
Thallium, Dissolved	ND ug/L		1.0	1	05/01/12 13:00	05/02/12 19:08	7440-28-0	
Vanadium, Dissolved	ND ug/L		1.0	1	05/01/12 13:00	05/02/12 19:08	7440-62-2	
Zinc, Dissolved	<b>1550</b> ug/L		10.0	1	05/01/12 13:00	05/02/12 19:08	7440-66-6	
<b>245.1 Mercury</b>	Analytical Method: EPA 245.1							
Mercury	ND ug/L		0.20	1	04/26/12 00:00	05/07/12 15:23	7439-97-6	
<b>245.1 Mercury, Dissolved</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury, Dissolved	ND ug/L		0.20	1	05/15/12 10:45	05/15/12 15:18	7439-97-6	
<b>2510B Specific Conductance</b>	Analytical Method: SM 2510B							
Specific Conductance	<b>2160</b> umhos/cm		10.0	1			04/30/12 18:09	
<b>Salinity</b>	Analytical Method: Calculated							
Salinity (as dissolved solids)	<b>1380</b> mg/L		6.0	1			05/02/12 09:41	
Salinity (as seawater)	<b>1.1</b> PSU		0.010	1			05/02/12 09:41	
<b>2320B Alkalinity</b>	Analytical Method: SM 2320B							
Alkalinity,Bicarbonate (CaCO3)	<b>192</b> mg/L		20.0	1			05/01/12 10:00	
Alkalinity, Carbonate (CaCO3)	ND mg/L		20.0	1			05/01/12 10:00	
Alkalinity, Total as CaCO3	<b>192</b> mg/L		20.0	1			05/01/12 10:00	
<b>2540C Total Dissolved Solids</b>	Analytical Method: SM 2540C							
Total Dissolved Solids	<b>2090</b> mg/L		5.0	1			04/25/12 10:15	

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## ANALYTICAL RESULTS

Project: APRIL 2012 RICO WATER SAMPLING  
Pace Project No.: 60119875

Sample: EB-1	Lab ID: 60119875021	Collected: 04/19/12 09:30	Received: 04/21/12 08:40	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>2540D Total Suspended Solids</b>	Analytical Method: SM 2540D							
Total Suspended Solids	<b>26.0</b>	mg/L	5.0	1		04/24/12 08:35		
<b>300.0 IC Anions 28 Days</b>	Analytical Method: EPA 300.0							
Sulfate	<b>1080</b>	mg/L	100	100		04/26/12 01:47	14808-79-8	
<b>4500CNE Cyanide, Total</b>	Analytical Method: SM 4500-CN-E							
Cyanide	<b>0.028</b>	mg/L	0.0050	1		05/02/12 18:40	57-12-5	

## ANALYTICAL RESULTS

Project: APRIL 2012 RICO WATER SAMPLING

Pace Project No.: 60119875

Sample: EB-2	Lab ID: 60119875022	Collected: 04/19/12 11:30	Received: 04/21/12 08:40	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.7 Potentially Diss. Metals</b>	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7							
Calcium, Dissolved	<b>352000</b> ug/L		200	2	05/01/12 13:00	05/01/12 21:43	7440-70-2	
Magnesium, Dissolved	<b>181000</b> ug/L		100	2	05/01/12 13:00	05/01/12 21:43	7439-95-4	
Potassium, Dissolved	<b>14800</b> ug/L		1000	2	05/01/12 13:00	05/01/12 21:43	7440-09-7	
Sodium, Dissolved	<b>6740</b> ug/L		1000	2	05/01/12 13:00	05/01/12 21:43	7440-23-5	
<b>200.8 MET ICPMS</b>	Analytical Method: EPA 200.8							
Aluminum	<b>26400</b> ug/L		40.0	10	04/26/12 09:37	05/02/12 03:46	7429-90-5	
Antimony	ND ug/L		5.0	10	04/26/12 09:37	05/02/12 03:46	7440-36-0	
Arsenic	<b>70.8</b> ug/L		5.0	10	04/26/12 09:37	05/02/12 03:46	7440-38-2	
Barium	<b>13.5</b> ug/L		3.0	10	04/26/12 09:37	05/02/12 03:46	7440-39-3	
Beryllium	<b>8.4</b> ug/L		2.0	10	04/26/12 09:37	05/02/12 03:46	7440-41-7	
Cadmium	<b>3.3</b> ug/L		0.80	10	04/26/12 09:37	05/02/12 03:46	7440-43-9	
Calcium	<b>380000</b> ug/L		2000	100	04/26/12 09:37	05/03/12 12:25	7440-70-2	
Chromium	ND ug/L		5.0	10	04/26/12 09:37	05/02/12 03:46	7440-47-3	D3
Copper	<b>30.2</b> ug/L		5.0	10	04/26/12 09:37	05/02/12 03:46	7440-50-8	
Iron	<b>767000</b> ug/L		5000	100	04/26/12 09:37	05/02/12 03:50	7439-89-6	
Lead	<b>225</b> ug/L		1.0	10	04/26/12 09:37	05/02/12 03:46	7439-92-1	
Magnesium	<b>185000</b> ug/L		50.0	10	04/26/12 09:37	05/02/12 03:46	7439-95-4	
Manganese	<b>44600</b> ug/L		50.0	100	04/26/12 09:37	05/02/12 03:50	7439-96-5	
Nickel	<b>192</b> ug/L		5.0	10	04/26/12 09:37	05/02/12 03:46	7440-02-0	
Potassium	<b>15800</b> ug/L		200	10	04/26/12 09:37	05/02/12 03:46	7440-09-7	
Selenium	<b>15.0</b> ug/L		5.0	10	04/26/12 09:37	05/02/12 03:46	7782-49-2	
Silver	ND ug/L		5.0	10	04/26/12 09:37	05/02/12 03:46	7440-22-4	D3
Sodium	<b>6980</b> ug/L		500	10	04/26/12 09:37	05/02/12 03:46	7440-23-5	
Thallium	ND ug/L		1.0	10	04/26/12 09:37	05/02/12 03:46	7440-28-0	D3
Total Hardness by 2340B	<b>1710000</b> ug/L		7100	100	04/26/12 09:37	05/03/12 12:25		
Vanadium	ND ug/L		1.0	10	04/26/12 09:37	05/02/12 03:46	7440-62-2	D3
Zinc	<b>81200</b> ug/L		5000	1000	04/26/12 09:37	05/02/12 03:53	7440-66-6	
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8							
Aluminum, Dissolved	<b>25300</b> ug/L		20.0	5	05/09/12 09:29	05/14/12 12:42	7429-90-5	
Antimony, Dissolved	ND ug/L		0.50	1	05/09/12 09:29	05/14/12 12:39	7440-36-0	
Arsenic, Dissolved	<b>1.7</b> ug/L		0.50	1	05/09/12 09:29	05/14/12 12:39	7440-38-2	
Barium, Dissolved	<b>11.4</b> ug/L		0.30	1	05/09/12 09:29	05/14/12 12:39	7440-39-3	
Beryllium, Dissolved	<b>7.6</b> ug/L		0.20	1	05/09/12 09:29	05/16/12 09:20	7440-41-7	
Cadmium, Dissolved	<b>1.7</b> ug/L		0.080	1	05/09/12 09:29	05/14/12 12:39	7440-43-9	
Calcium, Dissolved	<b>345000</b> ug/L		1000	50	05/09/12 09:29	05/14/12 12:46	7440-70-2	
Chromium, Dissolved	ND ug/L		0.50	1	05/09/12 09:29	05/14/12 12:39	7440-47-3	
Copper, Dissolved	<b>1.4</b> ug/L		0.50	1	05/09/12 09:29	05/14/12 12:39	7440-50-8	
Iron, Dissolved	<b>734000</b> ug/L		2500	50	05/09/12 09:29	05/14/12 12:46	7439-89-6	
Lead, Dissolved	<b>7.0</b> ug/L		0.10	1	05/09/12 09:29	05/14/12 12:39	7439-92-1	
Magnesium, Dissolved	<b>193000</b> ug/L		250	50	05/09/12 09:29	05/14/12 12:46	7439-95-4	
Manganese, Dissolved	<b>47500</b> ug/L		250	500	05/09/12 09:29	05/16/12 09:23	7439-96-5	
Nickel, Dissolved	<b>118</b> ug/L		0.50	1	05/09/12 09:29	05/14/12 12:39	7440-02-0	
Potassium, Dissolved	<b>16500</b> ug/L		20.0	1	05/09/12 09:29	05/14/12 12:39	7440-09-7	
Selenium, Dissolved	<b>5.3</b> ug/L		0.50	1	05/09/12 09:29	05/14/12 12:39	7782-49-2	

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## ANALYTICAL RESULTS

Project: APRIL 2012 RICO WATER SAMPLING

Pace Project No.: 60119875

Sample: EB-2	Lab ID: 60119875022	Collected: 04/19/12 11:30	Received: 04/21/12 08:40	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8							
Silver, Dissolved	ND ug/L		0.50	1	05/09/12 09:29	05/14/12 12:39	7440-22-4	
Sodium, Dissolved	<b>7170</b> ug/L		50.0	1	05/09/12 09:29	05/14/12 12:39	7440-23-5	
Thallium, Dissolved	<b>0.13</b> ug/L		0.10	1	05/09/12 09:29	05/14/12 12:39	7440-28-0	
Vanadium, Dissolved	ND ug/L		0.10	1	05/09/12 09:29	05/14/12 12:39	7440-62-2	
Zinc, Dissolved	<b>84000</b> ug/L		2500	500	05/09/12 09:29	05/16/12 09:23	7440-66-6	
<b>200.8 Potentially Diss. Metals</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum, Dissolved	<b>24500</b> ug/L		250	5	05/01/12 13:00	05/03/12 08:48	7429-90-5	
Antimony, Dissolved	<b>0.11J</b> ug/L		1.0	1	05/01/12 13:00	05/11/12 19:19	7440-36-0	
Arsenic, Dissolved	<b>10.8</b> ug/L		1.0	1	05/01/12 13:00	05/03/12 08:56	7440-38-2	
Barium, Dissolved	<b>9.1</b> ug/L		1.0	1	05/01/12 13:00	05/03/12 08:56	7440-39-3	
Beryllium, Dissolved	<b>7.1</b> ug/L		0.50	1	05/01/12 13:00	05/02/12 20:39	7440-41-7	
Cadmium, Dissolved	<b>1.6</b> ug/L		0.50	1	05/01/12 13:00	05/03/12 08:56	7440-43-9	
Chromium, Dissolved	<b>0.61J</b> ug/L		1.0	1	05/01/12 13:00	05/03/12 08:56	7440-47-3	
Copper, Dissolved	<b>1.4</b> ug/L		1.0	1	05/01/12 13:00	05/03/12 08:56	7440-50-8	
Iron, Dissolved	<b>752000</b> ug/L		25000	500	05/01/12 13:00	05/02/12 19:13	7439-89-6	
Lead, Dissolved	<b>10.4</b> ug/L		1.0	1	05/01/12 13:00	05/03/12 08:56	7439-92-1	
Manganese, Dissolved	<b>44000</b> ug/L		500	500	05/01/12 13:00	05/02/12 19:13	7439-96-5	
Nickel, Dissolved	<b>171</b> ug/L		5.0	5	05/01/12 13:00	05/03/12 08:48	7440-02-0	
Selenium, Dissolved	<b>2.0</b> ug/L		1.0	1	05/01/12 13:00	05/03/12 08:56	7782-49-2	
Silver, Dissolved	ND ug/L		0.50	1	05/01/12 13:00	05/03/12 08:56	7440-22-4	
Thallium, Dissolved	<b>0.12J</b> ug/L		1.0	1	05/01/12 13:00	05/03/12 08:56	7440-28-0	
Vanadium, Dissolved	ND ug/L		1.0	1	05/01/12 13:00	05/03/12 08:56	7440-62-2	
Zinc, Dissolved	<b>79200</b> ug/L		5000	500	05/01/12 13:00	05/02/12 19:13	7440-66-6	
<b>245.1 Mercury</b>	Analytical Method: EPA 245.1							
Mercury	ND ug/L		0.20	1	04/26/12 00:00	05/07/12 15:29	7439-97-6	
<b>245.1 Mercury, Dissolved</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury, Dissolved	ND ug/L		0.20	1	05/15/12 10:45	05/15/12 15:29	7439-97-6	
<b>2510B Specific Conductance</b>	Analytical Method: SM 2510B							
Specific Conductance	<b>3950</b> umhos/cm		10.0	1			04/30/12 18:10	
<b>Salinity</b>	Analytical Method: Calculated							
Salinity (as dissolved solids)	<b>2530</b> mg/L		6.0	1			05/02/12 09:41	
Salinity (as seawater)	<b>2.1</b> PSU		0.010	1			05/02/12 09:41	
<b>2320B Alkalinity</b>	Analytical Method: SM 2320B							
Alkalinity,Bicarbonate (CaCO3)	ND mg/L		20.0	1			05/01/12 10:00	
Alkalinity, Carbonate (CaCO3)	ND mg/L		20.0	1			05/01/12 10:00	
Alkalinity, Total as CaCO3	ND mg/L		20.0	1			05/01/12 10:00	
<b>2540C Total Dissolved Solids</b>	Analytical Method: SM 2540C							
Total Dissolved Solids	<b>5200</b> mg/L		5.0	1			04/25/12 10:15	

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## ANALYTICAL RESULTS

Project: APRIL 2012 RICO WATER SAMPLING  
Pace Project No.: 60119875

Sample: EB-2	Lab ID: 60119875022	Collected: 04/19/12 11:30	Received: 04/21/12 08:40	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>2540D Total Suspended Solids</b>	Analytical Method: SM 2540D							
Total Suspended Solids	<b>62.0</b>	mg/L	5.0	1		04/24/12 08:35		
<b>300.0 IC Anions 28 Days</b>	Analytical Method: EPA 300.0							
Sulfate	<b>2940</b>	mg/L	500	500		04/26/12 02:04	14808-79-8	
<b>4500CNE Cyanide, Total</b>	Analytical Method: SM 4500-CN-E							
Cyanide	ND	mg/L	0.0050	1		05/02/12 18:40	57-12-5	

## ANALYTICAL RESULTS

Project: APRIL 2012 RICO WATER SAMPLING

Pace Project No.: 60119875

Sample: MW-4 SHALLOW	Lab ID: 60119875023	Collected: 04/19/12 12:00	Received: 04/21/12 08:40	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.7 Potentially Diss. Metals</b>	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7							
Calcium, Dissolved	<b>252000</b> ug/L		100	1	05/01/12 13:00	05/01/12 21:47	7440-70-2	
Magnesium, Dissolved	<b>25900</b> ug/L		50.0	1	05/01/12 13:00	05/01/12 21:47	7439-95-4	
Potassium, Dissolved	<b>4640</b> ug/L		500	1	05/01/12 13:00	05/01/12 21:47	7440-09-7	
Sodium, Dissolved	<b>6900</b> ug/L		500	1	05/01/12 13:00	05/01/12 21:47	7440-23-5	
<b>200.8 MET ICPMS</b>	Analytical Method: EPA 200.8							
Aluminum	<b>45100</b> ug/L		80.0	20	04/26/12 09:37	05/02/12 03:40	7429-90-5	
Antimony	<b>0.75</b> ug/L		0.50	1	04/26/12 09:37	05/02/12 03:36	7440-36-0	
Arsenic	<b>48.4</b> ug/L		0.50	1	04/26/12 09:37	05/02/12 03:36	7440-38-2	
Barium	<b>629</b> ug/L		6.0	20	04/26/12 09:37	05/02/12 03:40	7440-39-3	
Beryllium	<b>3.1</b> ug/L		0.20	1	04/26/12 09:37	05/02/12 03:36	7440-41-7	
Cadmium	<b>7.6</b> ug/L		0.080	1	04/26/12 09:37	05/02/12 03:36	7440-43-9	
Calcium	<b>284000</b> ug/L		400	20	04/26/12 09:37	05/03/12 12:46	7440-70-2	
Chromium	<b>48.5</b> ug/L		0.50	1	04/26/12 09:37	05/02/12 03:36	7440-47-3	
Copper	<b>349</b> ug/L		0.50	1	04/26/12 09:37	05/02/12 03:36	7440-50-8	
Iron	<b>86100</b> ug/L		1000	20	04/26/12 09:37	05/02/12 03:40	7439-89-6	
Lead	<b>1140</b> ug/L		2.0	20	04/26/12 09:37	05/02/12 03:40	7439-92-1	
Magnesium	<b>46600</b> ug/L		100	20	04/26/12 09:37	05/02/12 03:40	7439-95-4	
Manganese	<b>4330</b> ug/L		10.0	20	04/26/12 09:37	05/02/12 03:40	7439-96-5	
Nickel	<b>47.3</b> ug/L		0.50	1	04/26/12 09:37	05/02/12 03:36	7440-02-0	
Potassium	<b>12600</b> ug/L		20.0	1	04/26/12 09:37	05/02/12 03:36	7440-09-7	
Selenium	<b>61.8</b> ug/L		0.50	1	04/26/12 09:37	05/02/12 03:36	7782-49-2	
Silver	<b>9.7</b> ug/L		0.50	1	04/26/12 09:37	05/02/12 03:36	7440-22-4	
Sodium	<b>7420</b> ug/L		50.0	1	04/26/12 09:37	05/02/12 03:36	7440-23-5	
Thallium	<b>0.68</b> ug/L		0.10	1	04/26/12 09:37	05/02/12 03:36	7440-28-0	
Total Hardness by 2340B	<b>902000</b> ug/L		1420	20	04/26/12 09:37	05/03/12 12:46		
Vanadium	<b>77.4</b> ug/L		0.10	1	04/26/12 09:37	05/02/12 03:36	7440-62-2	
Zinc	<b>2330</b> ug/L		100	20	04/26/12 09:37	05/02/12 03:40	7440-66-6	
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8							
Aluminum, Dissolved	<b>6.6</b> ug/L		4.0	1	05/09/12 09:29	05/14/12 12:59	7429-90-5	
Antimony, Dissolved	ND ug/L		0.50	1	05/09/12 09:29	05/14/12 12:59	7440-36-0	
Arsenic, Dissolved	ND ug/L		0.50	1	05/09/12 09:29	05/14/12 12:59	7440-38-2	
Barium, Dissolved	<b>104</b> ug/L		0.30	1	05/09/12 09:29	05/14/12 12:59	7440-39-3	
Beryllium, Dissolved	ND ug/L		0.20	1	05/09/12 09:29	05/16/12 09:27	7440-41-7	
Cadmium, Dissolved	<b>0.57</b> ug/L		0.080	1	05/09/12 09:29	05/14/12 12:59	7440-43-9	
Calcium, Dissolved	<b>235000</b> ug/L		400	20	05/09/12 09:29	05/14/12 13:03	7440-70-2	
Chromium, Dissolved	ND ug/L		0.50	1	05/09/12 09:29	05/14/12 12:59	7440-47-3	
Copper, Dissolved	<b>1.6</b> ug/L		0.50	1	05/09/12 09:29	05/14/12 12:59	7440-50-8	
Iron, Dissolved	<b>151</b> ug/L		50.0	1	05/09/12 09:29	05/14/12 12:59	7439-89-6	
Lead, Dissolved	<b>0.22</b> ug/L		0.10	1	05/09/12 09:29	05/14/12 12:59	7439-92-1	
Magnesium, Dissolved	<b>26800</b> ug/L		100	20	05/09/12 09:29	05/14/12 13:03	7439-95-4	
Manganese, Dissolved	<b>37.9</b> ug/L		0.50	1	05/09/12 09:29	05/14/12 12:59	7439-96-5	
Nickel, Dissolved	ND ug/L		0.50	1	05/09/12 09:29	05/14/12 12:59	7440-02-0	
Potassium, Dissolved	<b>4290</b> ug/L		20.0	1	05/09/12 09:29	05/14/12 12:59	7440-09-7	
Selenium, Dissolved	<b>37.5</b> ug/L		0.50	1	05/09/12 09:29	05/14/12 12:59	7782-49-2	

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## ANALYTICAL RESULTS

Project: APRIL 2012 RICO WATER SAMPLING

Pace Project No.: 60119875

Sample: MW-4 SHALLOW	Lab ID: 60119875023	Collected: 04/19/12 12:00	Received: 04/21/12 08:40	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8							
Silver, Dissolved	ND ug/L		0.50	1	05/09/12 09:29	05/14/12 12:59	7440-22-4	
Sodium, Dissolved	<b>6270</b> ug/L		50.0	1	05/09/12 09:29	05/14/12 12:59	7440-23-5	
Thallium, Dissolved	ND ug/L		0.10	1	05/09/12 09:29	05/14/12 12:59	7440-28-0	
Vanadium, Dissolved	<b>0.13</b> ug/L		0.10	1	05/09/12 09:29	05/14/12 12:59	7440-62-2	
Zinc, Dissolved	<b>143</b> ug/L		5.0	1	05/09/12 09:29	05/14/12 12:59	7440-66-6	
<b>200.8 Potentially Diss. Metals</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum, Dissolved	<b>14.2J</b> ug/L		50.0	1	05/01/12 13:00	05/02/12 19:17	7429-90-5	
Antimony, Dissolved	<b>0.15J</b> ug/L		1.0	1	05/01/12 13:00	05/11/12 19:22	7440-36-0	
Arsenic, Dissolved	<b>2.0</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 19:17	7440-38-2	
Barium, Dissolved	<b>110</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 19:17	7440-39-3	
Beryllium, Dissolved	ND ug/L		0.50	1	05/01/12 13:00	05/02/12 19:17	7440-41-7	
Cadmium, Dissolved	<b>0.80</b> ug/L		0.50	1	05/01/12 13:00	05/02/12 19:17	7440-43-9	
Chromium, Dissolved	<b>0.69J</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 19:17	7440-47-3	
Copper, Dissolved	<b>2.2</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 19:17	7440-50-8	
Iron, Dissolved	<b>86.9</b> ug/L		50.0	1	05/01/12 13:00	05/02/12 19:17	7439-89-6	
Lead, Dissolved	<b>1.7</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 19:17	7439-92-1	
Manganese, Dissolved	<b>99.2</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 19:17	7439-96-5	
Nickel, Dissolved	<b>1.2</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 19:17	7440-02-0	
Selenium, Dissolved	<b>39.9</b> ug/L		1.0	1	05/01/12 13:00	05/03/12 11:22	7782-49-2	
Silver, Dissolved	ND ug/L		0.50	1	05/01/12 13:00	05/02/12 19:17	7440-22-4	
Thallium, Dissolved	<b>0.042J</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 19:17	7440-28-0	
Vanadium, Dissolved	<b>0.25J</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 19:17	7440-62-2	
Zinc, Dissolved	<b>146</b> ug/L		10.0	1	05/01/12 13:00	05/02/12 19:17	7440-66-6	
<b>245.1 Mercury</b>	Analytical Method: EPA 245.1							
Mercury	<b>0.25</b> ug/L		0.20	1	04/26/12 00:00	05/07/12 15:31	7439-97-6	
<b>245.1 Mercury, Dissolved</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury, Dissolved	ND ug/L		0.20	1	05/15/12 10:45	05/15/12 15:31	7439-97-6	
<b>2510B Specific Conductance</b>	Analytical Method: SM 2510B							
Specific Conductance	<b>1280</b> umhos/cm		10.0	1			04/30/12 18:15	
<b>Salinity</b>	Analytical Method: Calculated							
Salinity (as dissolved solids)	<b>820</b> mg/L		6.0	1			05/02/12 09:41	
Salinity (as seawater)	<b>0.64</b> PSU		0.010	1			05/02/12 09:41	
<b>2320B Alkalinity</b>	Analytical Method: SM 2320B							
Alkalinity,Bicarbonate (CaCO3)	<b>228</b> mg/L		20.0	1			05/01/12 10:00	
Alkalinity, Carbonate (CaCO3)	ND mg/L		20.0	1			05/01/12 10:00	
Alkalinity, Total as CaCO3	<b>228</b> mg/L		20.0	1			05/01/12 10:00	
<b>2540C Total Dissolved Solids</b>	Analytical Method: SM 2540C							
Total Dissolved Solids	<b>949</b> mg/L		5.0	1			04/25/12 10:15	

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## ANALYTICAL RESULTS

Project: APRIL 2012 RICO WATER SAMPLING  
Pace Project No.: 60119875

Sample: MW-4 SHALLOW	Lab ID: 60119875023	Collected: 04/19/12 12:00	Received: 04/21/12 08:40	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>2540D Total Suspended Solids</b>	Analytical Method: SM 2540D							
Total Suspended Solids	902	mg/L	5.0	1		04/24/12 08:35		
<b>300.0 IC Anions 28 Days</b>	Analytical Method: EPA 300.0							
Sulfate	423	mg/L	50.0	50		04/26/12 02:21	14808-79-8	
<b>4500CNE Cyanide, Total</b>	Analytical Method: SM 4500-CN-E							
Cyanide	ND	mg/L	0.0050	1		05/02/12 18:41	57-12-5	

## ANALYTICAL RESULTS

Project: APRIL 2012 RICO WATER SAMPLING

Pace Project No.: 60119875

Sample: MW-4 DEEP	Lab ID: 60119875024	Collected: 04/19/12 12:10	Received: 04/21/12 08:40	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.7 Potentially Diss. Metals</b>	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7							
Calcium, Dissolved	<b>241000</b> ug/L		100	1	05/01/12 13:00	05/01/12 21:50	7440-70-2	
Magnesium, Dissolved	<b>27200</b> ug/L		50.0	1	05/01/12 13:00	05/01/12 21:50	7439-95-4	
Potassium, Dissolved	<b>1860</b> ug/L		500	1	05/01/12 13:00	05/01/12 21:50	7440-09-7	
Sodium, Dissolved	<b>4220</b> ug/L		500	1	05/01/12 13:00	05/01/12 21:50	7440-23-5	
<b>200.8 MET ICPMS</b>	Analytical Method: EPA 200.8							
Aluminum	<b>192</b> ug/L		4.0	1	04/26/12 09:37	05/02/12 04:06	7429-90-5	
Antimony	ND ug/L		0.50	1	04/26/12 09:37	05/02/12 04:06	7440-36-0	
Arsenic	ND ug/L		0.50	1	04/26/12 09:37	05/02/12 04:06	7440-38-2	
Barium	<b>16.0</b> ug/L		0.30	1	04/26/12 09:37	05/02/12 04:06	7440-39-3	
Beryllium	ND ug/L		0.20	1	04/26/12 09:37	05/02/12 04:06	7440-41-7	
Cadmium	<b>1.9</b> ug/L		0.080	1	04/26/12 09:37	05/02/12 04:06	7440-43-9	
Calcium	<b>261000</b> ug/L		400	20	04/26/12 09:37	05/03/12 12:49	7440-70-2	
Chromium	<b>1.1</b> ug/L		0.50	1	04/26/12 09:37	05/02/12 04:06	7440-47-3	
Copper	<b>5.1</b> ug/L		0.50	1	04/26/12 09:37	05/02/12 04:06	7440-50-8	
Iron	<b>378</b> ug/L		50.0	1	04/26/12 09:37	05/02/12 04:06	7439-89-6	
Lead	<b>2.3</b> ug/L		0.10	1	04/26/12 09:37	05/02/12 04:06	7439-92-1	
Magnesium	<b>30100</b> ug/L		100	20	04/26/12 09:37	05/02/12 04:10	7439-95-4	
Manganese	<b>53.6</b> ug/L		0.50	1	04/26/12 09:37	05/02/12 04:06	7439-96-5	
Nickel	<b>1.7</b> ug/L		0.50	1	04/26/12 09:37	05/02/12 04:06	7440-02-0	
Potassium	<b>1970</b> ug/L		20.0	1	04/26/12 09:37	05/02/12 04:06	7440-09-7	
Selenium	<b>38.1</b> ug/L		0.50	1	04/26/12 09:37	05/02/12 04:06	7782-49-2	
Silver	ND ug/L		0.50	1	04/26/12 09:37	05/02/12 04:06	7440-22-4	
Sodium	<b>4310</b> ug/L		50.0	1	04/26/12 09:37	05/02/12 04:06	7440-23-5	
Thallium	ND ug/L		0.10	1	04/26/12 09:37	05/02/12 04:06	7440-28-0	
Total Hardness by 2340B	<b>776000</b> ug/L		1420	20	04/26/12 09:37	05/03/12 12:49		
Vanadium	<b>0.39</b> ug/L		0.10	1	04/26/12 09:37	05/02/12 04:06	7440-62-2	
Zinc	<b>286</b> ug/L		5.0	1	04/26/12 09:37	05/02/12 04:06	7440-66-6	
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8							
Aluminum, Dissolved	<b>32.4</b> ug/L		4.0	1	05/09/12 09:29	05/14/12 13:06	7429-90-5	
Antimony, Dissolved	ND ug/L		0.50	1	05/09/12 09:29	05/14/12 13:06	7440-36-0	
Arsenic, Dissolved	ND ug/L		0.50	1	05/09/12 09:29	05/14/12 13:06	7440-38-2	
Barium, Dissolved	<b>14.1</b> ug/L		0.30	1	05/09/12 09:29	05/14/12 13:06	7440-39-3	
Beryllium, Dissolved	ND ug/L		0.20	1	05/09/12 09:29	05/16/12 09:30	7440-41-7	
Cadmium, Dissolved	<b>1.6</b> ug/L		0.080	1	05/09/12 09:29	05/14/12 13:06	7440-43-9	
Calcium, Dissolved	<b>233000</b> ug/L		400	20	05/09/12 09:29	05/14/12 13:10	7440-70-2	
Chromium, Dissolved	<b>0.56</b> ug/L		0.50	1	05/09/12 09:29	05/14/12 13:06	7440-47-3	
Copper, Dissolved	<b>2.1</b> ug/L		0.50	1	05/09/12 09:29	05/14/12 13:06	7440-50-8	
Iron, Dissolved	ND ug/L		50.0	1	05/09/12 09:29	05/14/12 13:06	7439-89-6	
Lead, Dissolved	ND ug/L		0.10	1	05/09/12 09:29	05/14/12 13:06	7439-92-1	
Magnesium, Dissolved	<b>28800</b> ug/L		100	20	05/09/12 09:29	05/14/12 13:10	7439-95-4	
Manganese, Dissolved	<b>18.1</b> ug/L		0.50	1	05/09/12 09:29	05/14/12 13:06	7439-96-5	
Nickel, Dissolved	ND ug/L		0.50	1	05/09/12 09:29	05/14/12 13:06	7440-02-0	
Potassium, Dissolved	<b>1780</b> ug/L		20.0	1	05/09/12 09:29	05/14/12 13:06	7440-09-7	
Selenium, Dissolved	<b>39.0</b> ug/L		0.50	1	05/09/12 09:29	05/14/12 13:06	7782-49-2	

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## ANALYTICAL RESULTS

Project: APRIL 2012 RICO WATER SAMPLING

Pace Project No.: 60119875

Sample: MW-4 DEEP	Lab ID: 60119875024	Collected: 04/19/12 12:10	Received: 04/21/12 08:40	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8							
Silver, Dissolved	ND ug/L		0.50	1	05/09/12 09:29	05/14/12 13:06	7440-22-4	
Sodium, Dissolved	<b>4010</b> ug/L		50.0	1	05/09/12 09:29	05/14/12 13:06	7440-23-5	
Thallium, Dissolved	ND ug/L		0.10	1	05/09/12 09:29	05/14/12 13:06	7440-28-0	
Vanadium, Dissolved	ND ug/L		0.10	1	05/09/12 09:29	05/14/12 13:06	7440-62-2	
Zinc, Dissolved	<b>263</b> ug/L		5.0	1	05/09/12 09:29	05/14/12 13:06	7440-66-6	
<b>200.8 Potentially Diss. Metals</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum, Dissolved	<b>29.2J</b> ug/L		50.0	1	05/01/12 13:00	05/02/12 19:21	7429-90-5	
Antimony, Dissolved	ND ug/L		1.0	1	05/01/12 13:00	05/11/12 19:25	7440-36-0	
Arsenic, Dissolved	<b>1.9</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 19:21	7440-38-2	
Barium, Dissolved	<b>13.2</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 19:21	7440-39-3	
Beryllium, Dissolved	<b>0.078J</b> ug/L		0.50	1	05/01/12 13:00	05/02/12 19:21	7440-41-7	
Cadmium, Dissolved	<b>1.9</b> ug/L		0.50	1	05/01/12 13:00	05/02/12 19:21	7440-43-9	
Chromium, Dissolved	<b>1.2</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 19:21	7440-47-3	
Copper, Dissolved	<b>2.9</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 19:21	7440-50-8	
Iron, Dissolved	<b>73.7</b> ug/L		50.0	1	05/01/12 13:00	05/02/12 19:21	7439-89-6	
Lead, Dissolved	<b>1.1</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 19:21	7439-92-1	
Manganese, Dissolved	<b>20.4</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 19:21	7439-96-5	
Nickel, Dissolved	ND ug/L		1.0	1	05/01/12 13:00	05/02/12 19:21	7440-02-0	
Selenium, Dissolved	<b>40.0</b> ug/L		1.0	1	05/01/12 13:00	05/03/12 11:27	7782-49-2	
Silver, Dissolved	ND ug/L		0.50	1	05/01/12 13:00	05/02/12 19:21	7440-22-4	
Thallium, Dissolved	<b>0.031J</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 19:21	7440-28-0	
Vanadium, Dissolved	<b>0.35J</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 19:21	7440-62-2	
Zinc, Dissolved	<b>291</b> ug/L		10.0	1	05/01/12 13:00	05/02/12 19:21	7440-66-6	
<b>245.1 Mercury</b>	Analytical Method: EPA 245.1							
Mercury	ND ug/L		0.20	1	04/26/12 00:00	05/07/12 15:33	7439-97-6	
<b>245.1 Mercury, Dissolved</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury, Dissolved	ND ug/L		0.20	1	05/15/12 10:45	05/15/12 15:33	7439-97-6	
<b>2510B Specific Conductance</b>	Analytical Method: SM 2510B							
Specific Conductance	<b>1210</b> umhos/cm		10.0	1			04/30/12 18:19	
<b>Salinity</b>	Analytical Method: Calculated							
Salinity (as dissolved solids)	<b>774</b> mg/L		6.0	1			05/02/12 09:41	
Salinity (as seawater)	<b>0.60</b> PSU		0.010	1			05/02/12 09:41	
<b>2320B Alkalinity</b>	Analytical Method: SM 2320B							
Alkalinity,Bicarbonate (CaCO3)	<b>228</b> mg/L		20.0	1			05/01/12 10:00	
Alkalinity, Carbonate (CaCO3)	ND mg/L		20.0	1			05/01/12 10:00	
Alkalinity, Total as CaCO3	<b>228</b> mg/L		20.0	1			05/01/12 10:00	
<b>2540C Total Dissolved Solids</b>	Analytical Method: SM 2540C							
Total Dissolved Solids	<b>951</b> mg/L		5.0	1			04/25/12 10:15	

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## ANALYTICAL RESULTS

Project: APRIL 2012 RICO WATER SAMPLING  
Pace Project No.: 60119875

Sample: MW-4 DEEP	Lab ID: 60119875024	Collected: 04/19/12 12:10	Received: 04/21/12 08:40	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>2540D Total Suspended Solids</b>	Analytical Method: SM 2540D							
Total Suspended Solids	7.0	mg/L	5.0	1		04/25/12 10:00		
<b>300.0 IC Anions 28 Days</b>	Analytical Method: EPA 300.0							
Sulfate	470	mg/L	50.0	50		04/26/12 03:13	14808-79-8	
<b>4500CNE Cyanide, Total</b>	Analytical Method: SM 4500-CN-E							
Cyanide	ND	mg/L	0.0050	1		05/02/12 18:41	57-12-5	

## ANALYTICAL RESULTS

Project: APRIL 2012 RICO WATER SAMPLING

Pace Project No.: 60119875

Sample: MW-5 SHALLOW	Lab ID: 60119875025	Collected: 04/19/12 12:30	Received: 04/21/12 08:40	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.7 Potentially Diss. Metals</b>	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7							
Calcium, Dissolved	<b>453000</b> ug/L		100	1	05/01/12 13:00	05/01/12 21:54	7440-70-2	
Magnesium, Dissolved	<b>57900</b> ug/L		50.0	1	05/01/12 13:00	05/01/12 21:54	7439-95-4	
Potassium, Dissolved	<b>3220</b> ug/L		500	1	05/01/12 13:00	05/01/12 21:54	7440-09-7	
Sodium, Dissolved	<b>3800</b> ug/L		500	1	05/01/12 13:00	05/01/12 21:54	7440-23-5	
<b>200.8 MET ICPMS</b>	Analytical Method: EPA 200.8							
Aluminum	<b>13400</b> ug/L		4.0	1	04/26/12 09:37	05/02/12 04:13	7429-90-5	
Antimony	ND ug/L		0.50	1	04/26/12 09:37	05/02/12 04:13	7440-36-0	
Arsenic	<b>65.3</b> ug/L		0.50	1	04/26/12 09:37	05/02/12 04:13	7440-38-2	
Barium	<b>149</b> ug/L		3.0	10	04/26/12 09:37	05/02/12 04:16	7440-39-3	
Beryllium	<b>3.9</b> ug/L		0.20	1	04/26/12 09:37	05/02/12 04:13	7440-41-7	
Cadmium	<b>155</b> ug/L		0.80	10	04/26/12 09:37	05/02/12 04:16	7440-43-9	
Calcium	<b>546000</b> ug/L		2000	100	04/26/12 09:37	05/03/12 12:53	7440-70-2	
Chromium	<b>4.3</b> ug/L		0.50	1	04/26/12 09:37	05/02/12 04:13	7440-47-3	
Copper	<b>384</b> ug/L		0.50	1	04/26/12 09:37	05/02/12 04:13	7440-50-8	
Iron	<b>166000</b> ug/L		500	10	04/26/12 09:37	05/02/12 04:16	7439-89-6	
Lead	<b>131</b> ug/L		0.10	1	04/26/12 09:37	05/02/12 04:13	7439-92-1	
Magnesium	<b>67000</b> ug/L		50.0	10	04/26/12 09:37	05/02/12 04:16	7439-95-4	
Manganese	<b>15500</b> ug/L		50.0	100	04/26/12 09:37	05/03/12 12:53	7439-96-5	
Nickel	<b>115</b> ug/L		0.50	1	04/26/12 09:37	05/02/12 04:13	7440-02-0	
Potassium	<b>4810</b> ug/L		20.0	1	04/26/12 09:37	05/02/12 04:13	7440-09-7	
Selenium	<b>26.5</b> ug/L		0.50	1	04/26/12 09:37	05/02/12 04:13	7782-49-2	
Silver	ND ug/L		5.0	10	04/26/12 09:37	05/02/12 04:16	7440-22-4	D3
Sodium	<b>3770</b> ug/L		50.0	1	04/26/12 09:37	05/02/12 04:13	7440-23-5	
Thallium	<b>0.35</b> ug/L		0.10	1	04/26/12 09:37	05/02/12 04:13	7440-28-0	
Total Hardness by 2340B	<b>1640000</b> ug/L		7100	100	04/26/12 09:37	05/03/12 12:53		
Vanadium	<b>7.3</b> ug/L		0.10	1	04/26/12 09:37	05/02/12 04:13	7440-62-2	
Zinc	<b>24600</b> ug/L		500	100	04/26/12 09:37	05/02/12 04:20	7440-66-6	
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8							
Aluminum, Dissolved	<b>9630</b> ug/L		4.0	1	05/09/12 09:29	05/14/12 13:13	7429-90-5	
Antimony, Dissolved	ND ug/L		0.50	1	05/09/12 09:29	05/14/12 13:13	7440-36-0	
Arsenic, Dissolved	<b>9.4</b> ug/L		0.50	1	05/09/12 09:29	05/14/12 13:13	7440-38-2	
Barium, Dissolved	<b>19.4</b> ug/L		0.30	1	05/09/12 09:29	05/14/12 13:13	7440-39-3	
Beryllium, Dissolved	<b>5.3</b> ug/L		0.20	1	05/09/12 09:29	05/16/12 09:44	7440-41-7	
Cadmium, Dissolved	<b>129</b> ug/L		0.080	1	05/09/12 09:29	05/14/12 13:13	7440-43-9	
Calcium, Dissolved	<b>234000</b> ug/L		2000	100	05/09/12 09:29	05/14/12 13:20	7440-70-2	
Chromium, Dissolved	<b>0.63</b> ug/L		0.50	1	05/09/12 09:29	05/14/12 13:13	7440-47-3	
Copper, Dissolved	<b>304</b> ug/L		0.50	1	05/09/12 09:29	05/14/12 13:13	7440-50-8	
Iron, Dissolved	<b>76300</b> ug/L		500	10	05/09/12 09:29	05/14/12 13:16	7439-89-6	
Lead, Dissolved	<b>111</b> ug/L		0.10	1	05/09/12 09:29	05/14/12 13:13	7439-92-1	
Magnesium, Dissolved	<b>55000</b> ug/L		50.0	10	05/09/12 09:29	05/14/12 13:16	7439-95-4	
Manganese, Dissolved	<b>7000</b> ug/L		50.0	100	05/09/12 09:29	05/14/12 13:20	7439-96-5	
Nickel, Dissolved	<b>72.0</b> ug/L		0.50	1	05/09/12 09:29	05/14/12 13:13	7440-02-0	
Potassium, Dissolved	<b>3400</b> ug/L		20.0	1	05/09/12 09:29	05/14/12 13:13	7440-09-7	
Selenium, Dissolved	<b>9.3</b> ug/L		0.50	1	05/09/12 09:29	05/14/12 13:13	7782-49-2	

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## ANALYTICAL RESULTS

Project: APRIL 2012 RICO WATER SAMPLING

Pace Project No.: 60119875

Sample: MW-5 SHALLOW	Lab ID: 60119875025	Collected: 04/19/12 12:30	Received: 04/21/12 08:40	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8							
Silver, Dissolved	ND ug/L		0.50	1	05/09/12 09:29	05/14/12 13:13	7440-22-4	
Sodium, Dissolved	<b>3780</b> ug/L		50.0	1	05/09/12 09:29	05/14/12 13:13	7440-23-5	
Thallium, Dissolved	<b>0.25</b> ug/L		0.10	1	05/09/12 09:29	05/14/12 13:13	7440-28-0	
Vanadium, Dissolved	ND ug/L		0.10	1	05/09/12 09:29	05/14/12 13:13	7440-62-2	
Zinc, Dissolved	<b>12000</b> ug/L		500	100	05/09/12 09:29	05/14/12 13:20	7440-66-6	
<b>200.8 Potentially Diss. Metals</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum, Dissolved	<b>8860</b> ug/L		50.0	1	05/01/12 13:00	05/02/12 19:25	7429-90-5	
Antimony, Dissolved	ND ug/L		1.0	1	05/01/12 13:00	05/11/12 19:28	7440-36-0	
Arsenic, Dissolved	<b>44.6</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 19:25	7440-38-2	
Barium, Dissolved	<b>20.6</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 19:25	7440-39-3	
Beryllium, Dissolved	<b>4.8</b> ug/L		0.50	1	05/01/12 13:00	05/02/12 19:25	7440-41-7	
Cadmium, Dissolved	<b>142</b> ug/L		0.50	1	05/01/12 13:00	05/02/12 19:25	7440-43-9	
Chromium, Dissolved	<b>0.74J</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 19:25	7440-47-3	
Copper, Dissolved	<b>319</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 19:25	7440-50-8	
Iron, Dissolved	<b>144000</b> ug/L		10000	200	05/01/12 13:00	05/03/12 08:06	7439-89-6	
Lead, Dissolved	<b>126</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 19:25	7439-92-1	
Manganese, Dissolved	<b>13800</b> ug/L		200	200	05/01/12 13:00	05/03/12 08:06	7439-96-5	
Nickel, Dissolved	<b>97.0</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 19:25	7440-02-0	
Selenium, Dissolved	<b>3.9</b> ug/L		1.0	1	05/01/12 13:00	05/03/12 11:31	7782-49-2	
Silver, Dissolved	ND ug/L		0.50	1	05/01/12 13:00	05/02/12 19:25	7440-22-4	
Thallium, Dissolved	<b>0.33J</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 19:25	7440-28-0	
Vanadium, Dissolved	ND ug/L		1.0	1	05/01/12 13:00	05/02/12 19:25	7440-62-2	
Zinc, Dissolved	<b>24600</b> ug/L		2000	200	05/01/12 13:00	05/03/12 08:06	7440-66-6	
<b>245.1 Mercury</b>	Analytical Method: EPA 245.1							
Mercury	ND ug/L		0.20	1	04/26/12 00:00	05/07/12 15:35	7439-97-6	
<b>245.1 Mercury, Dissolved</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury, Dissolved	ND ug/L		0.20	1	05/15/12 10:45	05/15/12 15:35	7439-97-6	
<b>2510B Specific Conductance</b>	Analytical Method: SM 2510B							
Specific Conductance	<b>2840</b> umhos/cm		10.0	1			04/30/12 18:20	
<b>Salinity</b>	Analytical Method: Calculated							
Salinity (as dissolved solids)	<b>1820</b> mg/L		6.0	1			05/02/12 09:41	
Salinity (as seawater)	<b>1.5</b> PSU		0.010	1			05/02/12 09:41	
<b>2320B Alkalinity</b>	Analytical Method: SM 2320B							
Alkalinity,Bicarbonate (CaCO3)	ND mg/L		20.0	1			05/03/12 09:20	
Alkalinity, Carbonate (CaCO3)	ND mg/L		20.0	1			05/03/12 09:20	
Alkalinity, Total as CaCO3	ND mg/L		20.0	1			05/03/12 09:20	
<b>2540C Total Dissolved Solids</b>	Analytical Method: SM 2540C							
Total Dissolved Solids	<b>2950</b> mg/L		5.0	1			04/25/12 10:15	

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## ANALYTICAL RESULTS

Project: APRIL 2012 RICO WATER SAMPLING

Pace Project No.: 60119875

Sample: MW-5 SHALLOW	Lab ID: 60119875025	Collected: 04/19/12 12:30	Received: 04/21/12 08:40	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>2540D Total Suspended Solids</b>	Analytical Method: SM 2540D							
Total Suspended Solids	<b>494</b>	mg/L	5.0	1		04/25/12 10:01		
<b>300.0 IC Anions 28 Days</b>	Analytical Method: EPA 300.0							
Sulfate	<b>1710</b>	mg/L	200	200		04/27/12 15:55	14808-79-8	
<b>4500CNE Cyanide, Total</b>	Analytical Method: SM 4500-CN-E							
Cyanide	<b>0.010</b>	mg/L	0.0050	1		05/02/12 18:44	57-12-5	

## ANALYTICAL RESULTS

Project: APRIL 2012 RICO WATER SAMPLING

Pace Project No.: 60119875

Sample: MW-5 DEEP	Lab ID: 60119875026	Collected: 04/19/12 12:35	Received: 04/21/12 08:40	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.7 Potentially Diss. Metals</b>	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7							
Calcium, Dissolved	<b>243000</b> ug/L		100	1	05/01/12 13:00	05/01/12 22:12	7440-70-2	
Magnesium, Dissolved	<b>64.6</b> ug/L		50.0	1	05/01/12 13:00	05/01/12 22:12	7439-95-4	
Potassium, Dissolved	<b>34000</b> ug/L		500	1	05/01/12 13:00	05/01/12 22:12	7440-09-7	
Sodium, Dissolved	<b>49100</b> ug/L		500	1	05/01/12 13:00	05/01/12 22:12	7440-23-5	
<b>200.8 MET ICPMS</b>	Analytical Method: EPA 200.8							
Aluminum	<b>228</b> ug/L		4.0	1	04/26/12 09:37	05/02/12 04:23	7429-90-5	
Antimony	ND ug/L		0.50	1	04/26/12 09:37	05/02/12 04:23	7440-36-0	
Arsenic	<b>42.0</b> ug/L		0.50	1	04/26/12 09:37	05/02/12 04:23	7440-38-2	
Barium	<b>257</b> ug/L		0.30	1	04/26/12 09:37	05/02/12 04:23	7440-39-3	
Beryllium	<b>0.23</b> ug/L		0.20	1	04/26/12 09:37	05/02/12 04:23	7440-41-7	
Cadmium	<b>0.088</b> ug/L		0.080	1	04/26/12 09:37	05/02/12 04:23	7440-43-9	
Calcium	<b>271000</b> ug/L		2000	100	04/26/12 09:37	05/03/12 12:56	7440-70-2	
Chromium	<b>7.3</b> ug/L		0.50	1	04/26/12 09:37	05/02/12 04:23	7440-47-3	
Copper	<b>5.1</b> ug/L		0.50	1	04/26/12 09:37	05/02/12 04:23	7440-50-8	
Iron	<b>13100</b> ug/L		50.0	1	04/26/12 09:37	05/02/12 04:23	7439-89-6	
Lead	<b>7.1</b> ug/L		0.10	1	04/26/12 09:37	05/02/12 04:23	7439-92-1	
Magnesium	<b>8130</b> ug/L		5.0	1	04/26/12 09:37	05/02/12 04:23	7439-95-4	
Manganese	<b>1620</b> ug/L		5.0	10	04/26/12 09:37	05/02/12 04:26	7439-96-5	
Nickel	<b>2.4</b> ug/L		0.50	1	04/26/12 09:37	05/02/12 04:23	7440-02-0	
Potassium	<b>35600</b> ug/L		20.0	1	04/26/12 09:37	05/02/12 04:23	7440-09-7	
Selenium	<b>0.66</b> ug/L		0.50	1	04/26/12 09:37	05/02/12 04:23	7782-49-2	
Silver	ND ug/L		0.50	1	04/26/12 09:37	05/02/12 04:23	7440-22-4	
Sodium	<b>51000</b> ug/L		50.0	1	04/26/12 09:37	05/02/12 04:23	7440-23-5	
Thallium	ND ug/L		0.10	1	04/26/12 09:37	05/02/12 04:23	7440-28-0	
Total Hardness by 2340B	<b>710000</b> ug/L		7100	100	04/26/12 09:37	05/03/12 12:56		
Vanadium	<b>0.78</b> ug/L		0.10	1	04/26/12 09:37	05/02/12 04:23	7440-62-2	
Zinc	<b>1670</b> ug/L		50.0	10	04/26/12 09:37	05/02/12 04:26	7440-66-6	
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8							
Aluminum, Dissolved	<b>32.7</b> ug/L		4.0	1	05/09/12 09:29	05/14/12 13:23	7429-90-5	
Antimony, Dissolved	ND ug/L		0.50	1	05/09/12 09:29	05/14/12 13:23	7440-36-0	
Arsenic, Dissolved	ND ug/L		0.50	1	05/09/12 09:29	05/14/12 13:23	7440-38-2	
Barium, Dissolved	<b>162</b> ug/L		0.30	1	05/09/12 09:29	05/14/12 13:23	7440-39-3	
Beryllium, Dissolved	ND ug/L		0.20	1	05/09/12 09:29	05/16/12 09:47	7440-41-7	
Cadmium, Dissolved	ND ug/L		0.080	1	05/09/12 09:29	05/14/12 13:23	7440-43-9	
Calcium, Dissolved	<b>190000</b> ug/L		200	10	05/09/12 09:29	05/14/12 13:26	7440-70-2	
Chromium, Dissolved	ND ug/L		0.50	1	05/09/12 09:29	05/14/12 13:23	7440-47-3	
Copper, Dissolved	<b>1.6</b> ug/L		0.50	1	05/09/12 09:29	05/14/12 13:23	7440-50-8	
Iron, Dissolved	ND ug/L		50.0	1	05/09/12 09:29	05/14/12 13:23	7439-89-6	
Lead, Dissolved	<b>0.11</b> ug/L		0.10	1	05/09/12 09:29	05/14/12 13:23	7439-92-1	
Magnesium, Dissolved	<b>49.2</b> ug/L		5.0	1	05/09/12 09:29	05/14/12 13:23	7439-95-4	
Manganese, Dissolved	<b>1.4</b> ug/L		0.50	1	05/09/12 09:29	05/14/12 13:23	7439-96-5	
Nickel, Dissolved	ND ug/L		0.50	1	05/09/12 09:29	05/14/12 13:23	7440-02-0	
Potassium, Dissolved	<b>33000</b> ug/L		20.0	1	05/09/12 09:29	05/14/12 13:23	7440-09-7	
Selenium, Dissolved	<b>0.76</b> ug/L		0.50	1	05/09/12 09:29	05/14/12 13:23	7782-49-2	

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## ANALYTICAL RESULTS

Project: APRIL 2012 RICO WATER SAMPLING

Pace Project No.: 60119875

Sample: MW-5 DEEP	Lab ID: 60119875026	Collected: 04/19/12 12:35	Received: 04/21/12 08:40	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8							
Silver, Dissolved	ND ug/L		0.50	1	05/09/12 09:29	05/14/12 13:23	7440-22-4	
Sodium, Dissolved	<b>48600</b> ug/L		500	10	05/09/12 09:29	05/14/12 13:26	7440-23-5	
Thallium, Dissolved	ND ug/L		0.10	1	05/09/12 09:29	05/14/12 13:23	7440-28-0	
Vanadium, Dissolved	<b>0.10</b> ug/L		0.10	1	05/09/12 09:29	05/14/12 13:23	7440-62-2	
Zinc, Dissolved	ND ug/L		5.0	1	05/09/12 09:29	05/14/12 13:23	7440-66-6	
<b>200.8 Potentially Diss. Metals</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum, Dissolved	<b>37.5J</b> ug/L		50.0	1	05/01/12 13:00	05/02/12 19:29	7429-90-5	
Antimony, Dissolved	<b>0.17J</b> ug/L		1.0	1	05/01/12 13:00	05/11/12 19:31	7440-36-0	
Arsenic, Dissolved	<b>6.4</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 19:29	7440-38-2	
Barium, Dissolved	<b>214</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 19:29	7440-39-3	
Beryllium, Dissolved	ND ug/L		0.50	1	05/01/12 13:00	05/02/12 19:29	7440-41-7	
Cadmium, Dissolved	ND ug/L		0.50	1	05/01/12 13:00	05/02/12 19:29	7440-43-9	
Chromium, Dissolved	<b>0.68J</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 19:29	7440-47-3	
Copper, Dissolved	<b>4.0</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 19:29	7440-50-8	
Iron, Dissolved	<b>46.7J</b> ug/L		50.0	1	05/01/12 13:00	05/02/12 19:29	7439-89-6	
Lead, Dissolved	<b>0.95J</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 19:29	7439-92-1	
Manganese, Dissolved	<b>1.7</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 19:29	7439-96-5	
Nickel, Dissolved	ND ug/L		1.0	1	05/01/12 13:00	05/02/12 19:29	7440-02-0	
Selenium, Dissolved	<b>0.44J</b> ug/L		1.0	1	05/01/12 13:00	05/03/12 11:35	7782-49-2	
Silver, Dissolved	ND ug/L		0.50	1	05/01/12 13:00	05/02/12 19:29	7440-22-4	
Thallium, Dissolved	ND ug/L		1.0	1	05/01/12 13:00	05/02/12 19:29	7440-28-0	
Vanadium, Dissolved	ND ug/L		1.0	1	05/01/12 13:00	05/02/12 19:29	7440-62-2	
Zinc, Dissolved	<b>3.0J</b> ug/L		10.0	1	05/01/12 13:00	05/02/12 19:29	7440-66-6	
<b>245.1 Mercury</b>	Analytical Method: EPA 245.1							
Mercury	ND ug/L		0.20	1	04/26/12 00:00	05/07/12 15:37	7439-97-6	
<b>245.1 Mercury, Dissolved</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury, Dissolved	ND ug/L		0.20	1	05/15/12 10:45	05/15/12 15:38	7439-97-6	
<b>2510B Specific Conductance</b>	Analytical Method: SM 2510B							
Specific Conductance	<b>1540</b> umhos/cm		10.0	1			04/30/12 18:24	
<b>Salinity</b>	Analytical Method: Calculated							
Salinity (as dissolved solids)	<b>985</b> mg/L		6.0	1			05/02/12 09:41	
Salinity (as seawater)	<b>0.77</b> PSU		0.010	1			05/02/12 09:41	
<b>2320B Alkalinity</b>	Analytical Method: SM 2320B							
Alkalinity,Bicarbonate (CaCO3)	ND mg/L		20.0	1			05/03/12 09:20	
Alkalinity, Carbonate (CaCO3)	<b>456</b> mg/L		20.0	1			05/03/12 09:20	
Alkalinity, Total as CaCO3	<b>486</b> mg/L		20.0	1			05/03/12 09:20	
<b>2540C Total Dissolved Solids</b>	Analytical Method: SM 2540C							
Total Dissolved Solids	<b>868</b> mg/L		5.0	1			04/25/12 10:16	

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## ANALYTICAL RESULTS

Project: APRIL 2012 RICO WATER SAMPLING  
Pace Project No.: 60119875

Sample: MW-5 DEEP	Lab ID: 60119875026	Collected: 04/19/12 12:35	Received: 04/21/12 08:40	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>2540D Total Suspended Solids</b>	Analytical Method: SM 2540D							
Total Suspended Solids	338	mg/L	5.0	1		04/25/12 10:01		
<b>300.0 IC Anions 28 Days</b>	Analytical Method: EPA 300.0							
Sulfate	371	mg/L	50.0	50		04/27/12 16:13	14808-79-8	
<b>4500CNE Cyanide, Total</b>	Analytical Method: SM 4500-CN-E							
Cyanide	0.0052	mg/L	0.0050	1		05/02/12 18:44	57-12-5	

## ANALYTICAL RESULTS

Project: APRIL 2012 RICO WATER SAMPLING

Pace Project No.: 60119875

Sample: MW-6 SHALLOW	Lab ID: 60119875027	Collected: 04/19/12 13:00	Received: 04/21/12 08:40	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.7 Potentially Diss. Metals</b>	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7							
Calcium, Dissolved	<b>298000</b> ug/L		100	1	05/01/12 13:00	05/01/12 22:15	7440-70-2	
Magnesium, Dissolved	<b>43800</b> ug/L		50.0	1	05/01/12 13:00	05/01/12 22:15	7439-95-4	
Potassium, Dissolved	<b>10800</b> ug/L		500	1	05/01/12 13:00	05/01/12 22:15	7440-09-7	
Sodium, Dissolved	<b>3840</b> ug/L		500	1	05/01/12 13:00	05/01/12 22:15	7440-23-5	
<b>200.8 MET ICPMS</b>	Analytical Method: EPA 200.8							
Aluminum	<b>13000</b> ug/L		4.0	1	04/26/12 09:37	05/02/12 04:43	7429-90-5	
Antimony	ND ug/L		0.50	1	04/26/12 09:37	05/02/12 04:43	7440-36-0	
Arsenic	<b>80.7</b> ug/L		0.50	1	04/26/12 09:37	05/02/12 04:43	7440-38-2	
Barium	<b>139</b> ug/L		0.30	1	04/26/12 09:37	05/02/12 04:43	7440-39-3	
Beryllium	<b>1.2</b> ug/L		0.20	1	04/26/12 09:37	05/02/12 04:43	7440-41-7	
Cadmium	<b>5.7</b> ug/L		0.080	1	04/26/12 09:37	05/02/12 04:43	7440-43-9	
Calcium	<b>354000</b> ug/L		2000	100	04/26/12 09:37	05/02/12 04:50	7440-70-2	
Chromium	<b>11.2</b> ug/L		0.50	1	04/26/12 09:37	05/02/12 04:43	7440-47-3	
Copper	<b>49.0</b> ug/L		0.50	1	04/26/12 09:37	05/02/12 04:43	7440-50-8	
Iron	<b>61600</b> ug/L		500	10	04/26/12 09:37	05/02/12 04:47	7439-89-6	
Lead	<b>70.5</b> ug/L		0.10	1	04/26/12 09:37	05/02/12 04:43	7439-92-1	
Magnesium	<b>50900</b> ug/L		50.0	10	04/26/12 09:37	05/02/12 04:47	7439-95-4	
Manganese	<b>6400</b> ug/L		50.0	100	04/26/12 09:37	05/02/12 04:50	7439-96-5	
Nickel	<b>14.0</b> ug/L		0.50	1	04/26/12 09:37	05/02/12 04:43	7440-02-0	
Potassium	<b>14000</b> ug/L		20.0	1	04/26/12 09:37	05/02/12 04:43	7440-09-7	
Selenium	<b>40.0</b> ug/L		0.50	1	04/26/12 09:37	05/02/12 04:43	7782-49-2	
Silver	<b>0.53</b> ug/L		0.50	1	04/26/12 09:37	05/02/12 04:43	7440-22-4	
Sodium	<b>3830</b> ug/L		50.0	1	04/26/12 09:37	05/02/12 04:43	7440-23-5	
Thallium	<b>0.35</b> ug/L		0.10	1	04/26/12 09:37	05/02/12 04:43	7440-28-0	
Total Hardness by 2340B	<b>1090000</b> ug/L		7100	100	04/26/12 09:37	05/02/12 04:50		
Vanadium	<b>15.9</b> ug/L		0.10	1	04/26/12 09:37	05/02/12 04:43	7440-62-2	
Zinc	<b>1810</b> ug/L		50.0	10	04/26/12 09:37	05/02/12 04:47	7440-66-6	
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8							
Aluminum, Dissolved	<b>613</b> ug/L		4.0	1	05/09/12 09:29	05/14/12 13:43	7429-90-5	
Antimony, Dissolved	ND ug/L		0.50	1	05/09/12 09:29	05/14/12 13:43	7440-36-0	
Arsenic, Dissolved	ND ug/L		0.50	1	05/09/12 09:29	05/14/12 13:43	7440-38-2	
Barium, Dissolved	<b>17.0</b> ug/L		0.30	1	05/09/12 09:29	05/14/12 13:43	7440-39-3	
Beryllium, Dissolved	<b>0.74</b> ug/L		0.20	1	05/09/12 09:29	05/16/12 09:50	7440-41-7	
Cadmium, Dissolved	<b>0.51</b> ug/L		0.080	1	05/09/12 09:29	05/14/12 13:43	7440-43-9	
Calcium, Dissolved	<b>285000</b> ug/L		2000	100	05/09/12 09:29	05/14/12 13:50	7440-70-2	
Chromium, Dissolved	ND ug/L		0.50	1	05/09/12 09:29	05/14/12 13:43	7440-47-3	
Copper, Dissolved	ND ug/L		0.50	1	05/09/12 09:29	05/14/12 13:43	7440-50-8	
Iron, Dissolved	<b>4360</b> ug/L		50.0	1	05/09/12 09:29	05/14/12 13:43	7439-89-6	
Lead, Dissolved	ND ug/L		0.10	1	05/09/12 09:29	05/14/12 13:43	7439-92-1	
Magnesium, Dissolved	<b>44300</b> ug/L		50.0	10	05/09/12 09:29	05/14/12 13:47	7439-95-4	
Manganese, Dissolved	<b>5640</b> ug/L		50.0	100	05/09/12 09:29	05/14/12 13:50	7439-96-5	
Nickel, Dissolved	ND ug/L		0.50	1	05/09/12 09:29	05/14/12 13:43	7440-02-0	
Potassium, Dissolved	<b>10200</b> ug/L		20.0	1	05/09/12 09:29	05/14/12 13:43	7440-09-7	
Selenium, Dissolved	<b>35.0</b> ug/L		0.50	1	05/09/12 09:29	05/14/12 13:43	7782-49-2	

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## ANALYTICAL RESULTS

Project: APRIL 2012 RICO WATER SAMPLING

Pace Project No.: 60119875

Sample: MW-6 SHALLOW	Lab ID: 60119875027	Collected: 04/19/12 13:00	Received: 04/21/12 08:40	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8							
Silver, Dissolved	ND ug/L		0.50	1	05/09/12 09:29	05/14/12 13:43	7440-22-4	
Sodium, Dissolved	<b>3440</b> ug/L		50.0	1	05/09/12 09:29	05/14/12 13:43	7440-23-5	
Thallium, Dissolved	ND ug/L		0.10	1	05/09/12 09:29	05/14/12 13:43	7440-28-0	
Vanadium, Dissolved	ND ug/L		0.10	1	05/09/12 09:29	05/14/12 13:43	7440-62-2	
Zinc, Dissolved	<b>614</b> ug/L		50.0	10	05/09/12 09:29	05/14/12 13:47	7440-66-6	
<b>200.8 Potentially Diss. Metals</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum, Dissolved	<b>1100</b> ug/L		50.0	1	05/01/12 13:00	05/02/12 19:54	7429-90-5	
Antimony, Dissolved	ND ug/L		1.0	1	05/01/12 13:00	05/11/12 19:34	7440-36-0	
Arsenic, Dissolved	<b>26.0</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 19:54	7440-38-2	
Barium, Dissolved	<b>18.7</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 19:54	7440-39-3	
Beryllium, Dissolved	<b>0.85</b> ug/L		0.50	1	05/01/12 13:00	05/02/12 19:54	7440-41-7	
Cadmium, Dissolved	<b>0.95</b> ug/L		0.50	1	05/01/12 13:00	05/02/12 19:54	7440-43-9	
Chromium, Dissolved	<b>0.63J</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 19:54	7440-47-3	
Copper, Dissolved	<b>3.5</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 19:54	7440-50-8	
Iron, Dissolved	<b>38300</b> ug/L		50.0	1	05/01/12 13:00	05/02/12 19:54	7439-89-6	
Lead, Dissolved	<b>4.3</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 19:54	7439-92-1	
Manganese, Dissolved	<b>5760</b> ug/L		100	100	05/01/12 13:00	05/03/12 08:10	7439-96-5	
Nickel, Dissolved	<b>3.9</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 19:54	7440-02-0	
Selenium, Dissolved	<b>38.3</b> ug/L		1.0	1	05/01/12 13:00	05/03/12 12:00	7782-49-2	
Silver, Dissolved	ND ug/L		0.50	1	05/01/12 13:00	05/02/12 19:54	7440-22-4	
Thallium, Dissolved	<b>0.097J</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 19:54	7440-28-0	
Vanadium, Dissolved	ND ug/L		1.0	1	05/01/12 13:00	05/02/12 19:54	7440-62-2	
Zinc, Dissolved	<b>710</b> ug/L		10.0	1	05/01/12 13:00	05/02/12 19:54	7440-66-6	
<b>245.1 Mercury</b>	Analytical Method: EPA 245.1							
Mercury	ND ug/L		0.20	1	04/26/12 00:00	05/07/12 15:44	7439-97-6	
<b>245.1 Mercury, Dissolved</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury, Dissolved	ND ug/L		0.20	1	05/15/12 10:45	05/15/12 15:40	7439-97-6	
<b>2510B Specific Conductance</b>	Analytical Method: SM 2510B							
Specific Conductance	<b>1690</b> umhos/cm		10.0	1			04/30/12 18:25	
<b>Salinity</b>	Analytical Method: Calculated							
Salinity (as dissolved solids)	<b>1080</b> mg/L		6.0	1			05/02/12 09:41	
Salinity (as seawater)	<b>0.85</b> PSU		0.010	1			05/02/12 09:41	
<b>2320B Alkalinity</b>	Analytical Method: SM 2320B							
Alkalinity,Bicarbonate (CaCO3)	<b>94.0</b> mg/L		20.0	1			05/03/12 09:20	
Alkalinity, Carbonate (CaCO3)	ND mg/L		20.0	1			05/03/12 09:20	
Alkalinity, Total as CaCO3	<b>94.0</b> mg/L		20.0	1			05/03/12 09:20	
<b>2540C Total Dissolved Solids</b>	Analytical Method: SM 2540C							
Total Dissolved Solids	<b>1440</b> mg/L		5.0	1			04/25/12 10:16	

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## ANALYTICAL RESULTS

Project: APRIL 2012 RICO WATER SAMPLING  
Pace Project No.: 60119875

Sample: MW-6 SHALLOW	Lab ID: 60119875027	Collected: 04/19/12 13:00	Received: 04/21/12 08:40	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>2540D Total Suspended Solids</b>	Analytical Method: SM 2540D							
Total Suspended Solids	460	mg/L	5.0	1		04/25/12 10:01		
<b>300.0 IC Anions 28 Days</b>	Analytical Method: EPA 300.0							
Sulfate	816	mg/L	100	100		04/26/12 04:04	14808-79-8	
<b>4500CNE Cyanide, Total</b>	Analytical Method: SM 4500-CN-E							
Cyanide	ND	mg/L	0.0050	1		05/02/12 18:45	57-12-5	

## ANALYTICAL RESULTS

Project: APRIL 2012 RICO WATER SAMPLING

Pace Project No.: 60119875

Sample: MW-6 DEEP	Lab ID: 60119875028	Collected: 04/19/12 13:10	Received: 04/21/12 08:40	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.7 Potentially Diss. Metals</b>	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7							
Calcium, Dissolved	<b>258000</b> ug/L		100	1	05/01/12 13:00	05/01/12 22:19	7440-70-2	
Magnesium, Dissolved	<b>35400</b> ug/L		50.0	1	05/01/12 13:00	05/01/12 22:19	7439-95-4	
Potassium, Dissolved	<b>7540</b> ug/L		500	1	05/01/12 13:00	05/01/12 22:19	7440-09-7	
Sodium, Dissolved	<b>8300</b> ug/L		500	1	05/01/12 13:00	05/01/12 22:19	7440-23-5	
<b>200.8 MET ICPMS</b>	Analytical Method: EPA 200.8							
Aluminum	<b>532</b> ug/L		4.0	1	04/26/12 09:37	05/02/12 04:53	7429-90-5	
Antimony	ND ug/L		0.50	1	04/26/12 09:37	05/02/12 04:53	7440-36-0	
Arsenic	<b>34.8</b> ug/L		0.50	1	04/26/12 09:37	05/02/12 04:53	7440-38-2	
Barium	<b>26.1</b> ug/L		0.30	1	04/26/12 09:37	05/02/12 04:53	7440-39-3	
Beryllium	<b>0.57</b> ug/L		0.20	1	04/26/12 09:37	05/02/12 04:53	7440-41-7	
Cadmium	<b>0.36</b> ug/L		0.080	1	04/26/12 09:37	05/02/12 04:53	7440-43-9	
Calcium	<b>285000</b> ug/L		2000	100	04/26/12 09:37	05/02/12 05:00	7440-70-2	
Chromium	<b>0.85</b> ug/L		0.50	1	04/26/12 09:37	05/02/12 04:53	7440-47-3	
Copper	<b>4.3</b> ug/L		0.50	1	04/26/12 09:37	05/02/12 04:53	7440-50-8	
Iron	<b>21100</b> ug/L		50.0	1	04/26/12 09:37	05/02/12 04:53	7439-89-6	
Lead	<b>5.1</b> ug/L		0.10	1	04/26/12 09:37	05/02/12 04:53	7439-92-1	
Magnesium	<b>38500</b> ug/L		50.0	10	04/26/12 09:37	05/02/12 04:57	7439-95-4	
Manganese	<b>7430</b> ug/L		50.0	100	04/26/12 09:37	05/02/12 05:00	7439-96-5	
Nickel	<b>2.5</b> ug/L		0.50	1	04/26/12 09:37	05/02/12 04:53	7440-02-0	
Potassium	<b>7870</b> ug/L		20.0	1	04/26/12 09:37	05/02/12 04:53	7440-09-7	
Selenium	<b>0.80</b> ug/L		0.50	1	04/26/12 09:37	05/02/12 04:53	7782-49-2	
Silver	ND ug/L		0.50	1	04/26/12 09:37	05/02/12 04:53	7440-22-4	
Sodium	<b>8280</b> ug/L		50.0	1	04/26/12 09:37	05/02/12 04:53	7440-23-5	
Thallium	ND ug/L		0.10	1	04/26/12 09:37	05/02/12 04:53	7440-28-0	
Total Hardness by 2340B	<b>869000</b> ug/L		7100	100	04/26/12 09:37	05/02/12 05:00		
Vanadium	<b>0.33</b> ug/L		0.10	1	04/26/12 09:37	05/02/12 04:53	7440-62-2	
Zinc	<b>369</b> ug/L		5.0	1	04/26/12 09:37	05/02/12 04:53	7440-66-6	
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8							
Aluminum, Dissolved	<b>130</b> ug/L		4.0	1	05/09/12 09:29	05/14/12 13:53	7429-90-5	
Antimony, Dissolved	ND ug/L		0.50	1	05/09/12 09:29	05/14/12 13:53	7440-36-0	
Arsenic, Dissolved	ND ug/L		0.50	1	05/09/12 09:29	05/14/12 13:53	7440-38-2	
Barium, Dissolved	<b>20.4</b> ug/L		0.30	1	05/09/12 09:29	05/14/12 13:53	7440-39-3	
Beryllium, Dissolved	<b>0.49</b> ug/L		0.20	1	05/09/12 09:29	05/16/12 09:54	7440-41-7	
Cadmium, Dissolved	<b>0.24</b> ug/L		0.080	1	05/09/12 09:29	05/14/12 13:53	7440-43-9	
Calcium, Dissolved	<b>254000</b> ug/L		400	20	05/09/12 09:29	05/14/12 13:57	7440-70-2	
Chromium, Dissolved	ND ug/L		0.50	1	05/09/12 09:29	05/14/12 13:53	7440-47-3	
Copper, Dissolved	ND ug/L		0.50	1	05/09/12 09:29	05/14/12 13:53	7440-50-8	
Iron, Dissolved	<b>162</b> ug/L		50.0	1	05/09/12 09:29	05/14/12 13:53	7439-89-6	
Lead, Dissolved	ND ug/L		0.10	1	05/09/12 09:29	05/14/12 13:53	7439-92-1	
Magnesium, Dissolved	<b>37400</b> ug/L		100	20	05/09/12 09:29	05/14/12 13:57	7439-95-4	
Manganese, Dissolved	<b>7250</b> ug/L		10.0	20	05/09/12 09:29	05/14/12 13:57	7439-96-5	
Nickel, Dissolved	ND ug/L		0.50	1	05/09/12 09:29	05/14/12 13:53	7440-02-0	
Potassium, Dissolved	<b>7270</b> ug/L		20.0	1	05/09/12 09:29	05/14/12 13:53	7440-09-7	
Selenium, Dissolved	<b>0.54</b> ug/L		0.50	1	05/09/12 09:29	05/14/12 13:53	7782-49-2	

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## ANALYTICAL RESULTS

Project: APRIL 2012 RICO WATER SAMPLING

Pace Project No.: 60119875

Sample: MW-6 DEEP	Lab ID: 60119875028	Collected: 04/19/12 13:10	Received: 04/21/12 08:40	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8							
Silver, Dissolved	ND ug/L		0.50	1	05/09/12 09:29	05/14/12 13:53	7440-22-4	
Sodium, Dissolved	<b>7870</b> ug/L		50.0	1	05/09/12 09:29	05/14/12 13:53	7440-23-5	
Thallium, Dissolved	ND ug/L		0.10	1	05/09/12 09:29	05/14/12 13:53	7440-28-0	
Vanadium, Dissolved	ND ug/L		0.10	1	05/09/12 09:29	05/14/12 13:53	7440-62-2	
Zinc, Dissolved	<b>252</b> ug/L		5.0	1	05/09/12 09:29	05/14/12 13:53	7440-66-6	
<b>200.8 Potentially Diss. Metals</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum, Dissolved	<b>370</b> ug/L		50.0	1	05/01/12 13:00	05/02/12 19:58	7429-90-5	
Antimony, Dissolved	<b>0.17J</b> ug/L		1.0	1	05/01/12 13:00	05/11/12 19:37	7440-36-0	
Arsenic, Dissolved	<b>17.9</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 19:58	7440-38-2	
Barium, Dissolved	<b>23.5</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 19:58	7440-39-3	
Beryllium, Dissolved	<b>0.64</b> ug/L		0.50	1	05/01/12 13:00	05/02/12 19:58	7440-41-7	
Cadmium, Dissolved	<b>0.24J</b> ug/L		0.50	1	05/01/12 13:00	05/02/12 19:58	7440-43-9	
Chromium, Dissolved	<b>0.63J</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 19:58	7440-47-3	
Copper, Dissolved	<b>0.98J</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 19:58	7440-50-8	
Iron, Dissolved	<b>18700</b> ug/L		50.0	1	05/01/12 13:00	05/02/12 19:58	7439-89-6	
Lead, Dissolved	<b>1.1</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 19:58	7439-92-1	
Manganese, Dissolved	<b>7070</b> ug/L		100	100	05/01/12 13:00	05/03/12 08:14	7439-96-5	
Nickel, Dissolved	<b>0.91J</b> ug/L		1.0	1	05/01/12 13:00	05/02/12 19:58	7440-02-0	
Selenium, Dissolved	ND ug/L		1.0	1	05/01/12 13:00	05/03/12 12:04	7782-49-2	
Silver, Dissolved	ND ug/L		0.50	1	05/01/12 13:00	05/02/12 19:58	7440-22-4	
Thallium, Dissolved	ND ug/L		1.0	1	05/01/12 13:00	05/02/12 19:58	7440-28-0	
Vanadium, Dissolved	ND ug/L		1.0	1	05/01/12 13:00	05/02/12 19:58	7440-62-2	
Zinc, Dissolved	<b>336</b> ug/L		10.0	1	05/01/12 13:00	05/02/12 19:58	7440-66-6	
<b>245.1 Mercury</b>	Analytical Method: EPA 245.1							
Mercury	ND ug/L		0.20	1	04/26/12 00:00	05/07/12 15:46	7439-97-6	
<b>245.1 Mercury, Dissolved</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury, Dissolved	ND ug/L		0.20	1	05/15/12 10:45	05/15/12 15:42	7439-97-6	
<b>2510B Specific Conductance</b>	Analytical Method: SM 2510B							
Specific Conductance	<b>1400</b> umhos/cm		10.0	1			04/30/12 18:28	
<b>Salinity</b>	Analytical Method: Calculated							
Salinity (as dissolved solids)	<b>896</b> mg/L		6.0	1			05/02/12 09:41	
Salinity (as seawater)	<b>0.70</b> PSU		0.010	1			05/02/12 09:41	
<b>2320B Alkalinity</b>	Analytical Method: SM 2320B							
Alkalinity,Bicarbonate (CaCO3)	<b>148</b> mg/L		20.0	1			05/03/12 09:20	
Alkalinity, Carbonate (CaCO3)	ND mg/L		20.0	1			05/03/12 09:20	
Alkalinity, Total as CaCO3	<b>148</b> mg/L		20.0	1			05/03/12 09:20	
<b>2540C Total Dissolved Solids</b>	Analytical Method: SM 2540C							
Total Dissolved Solids	<b>1170</b> mg/L		5.0	1			04/25/12 10:16	

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## ANALYTICAL RESULTS

Project: APRIL 2012 RICO WATER SAMPLING  
 Pace Project No.: 60119875

Sample: MW-6 DEEP	Lab ID: 60119875028	Collected: 04/19/12 13:10	Received: 04/21/12 08:40	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>2540D Total Suspended Solids</b>	Analytical Method: SM 2540D							
Total Suspended Solids	<b>44.0</b>	mg/L	5.0	1		04/25/12 10:01		
<b>300.0 IC Anions 28 Days</b>	Analytical Method: EPA 300.0							
Sulfate	<b>628</b>	mg/L	50.0	50		04/26/12 04:21	14808-79-8	
<b>4500CNE Cyanide, Total</b>	Analytical Method: SM 4500-CN-E							
Cyanide	ND	mg/L	0.0050	1		05/02/12 18:48	57-12-5	

**Appendix D**  
**Laboratory QC Results**

## QUALITY CONTROL DATA

Project: APRIL 2012 RICO WATER SAMPLING

Pace Project No.: 60119875

QC Batch:	ICPM/32007	Analysis Method:	EPA 200.8
QC Batch Method:	EPA 200.8	Analysis Description:	200.8 MET
Associated Lab Samples:	60119875020, 60119875021, 60119875022, 60119875023, 60119875024, 60119875025, 60119875026, 60119875027, 60119875028		

METHOD BLANK:	1181825	Matrix:	Water
Associated Lab Samples:	60119875020, 60119875021, 60119875022, 60119875023, 60119875024, 60119875025, 60119875026, 60119875027, 60119875028		

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Aluminum	ug/L	ND	4.0	05/02/12 02:46	
Antimony	ug/L	ND	0.50	05/02/12 02:46	
Arsenic	ug/L	ND	0.50	05/02/12 02:46	
Barium	ug/L	ND	0.30	05/02/12 02:46	
Beryllium	ug/L	ND	0.20	05/02/12 02:46	
Cadmium	ug/L	ND	0.080	05/02/12 02:46	
Calcium	ug/L	ND	20.0	05/03/12 12:01	
Chromium	ug/L	ND	0.50	05/02/12 02:46	
Copper	ug/L	ND	0.50	05/02/12 02:46	
Iron	ug/L	ND	50.0	05/02/12 02:46	
Lead	ug/L	ND	0.10	05/02/12 02:46	
Magnesium	ug/L	ND	5.0	05/02/12 02:46	
Manganese	ug/L	ND	0.50	05/02/12 02:46	
Nickel	ug/L	ND	0.50	05/02/12 02:46	
Potassium	ug/L	ND	20.0	05/02/12 02:46	
Selenium	ug/L	ND	0.50	05/02/12 02:46	
Silver	ug/L	ND	0.50	05/02/12 02:46	
Sodium	ug/L	ND	50.0	05/02/12 02:46	
Thallium	ug/L	ND	0.10	05/02/12 02:46	
Total Hardness by 2340B	ug/L	ND	71.0	05/02/12 02:46	
Vanadium	ug/L	ND	0.10	05/02/12 02:46	
Zinc	ug/L	ND	5.0	05/02/12 02:46	

LABORATORY CONTROL SAMPLE: 1181826

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum	ug/L	80	77.4	97	85-115	
Antimony	ug/L	80	72.4	90	85-115	
Arsenic	ug/L	80	77.2	96	85-115	
Barium	ug/L	80	75.2	94	85-115	
Beryllium	ug/L	80	74.0	93	85-115	
Cadmium	ug/L	80	77.7	97	85-115	
Calcium	ug/L	1000	1100	110	85-115	
Chromium	ug/L	80	77.7	97	85-115	
Copper	ug/L	80	82.5	103	85-115	
Iron	ug/L	1000	982	98	85-115	
Lead	ug/L	80	74.5	93	85-115	
Magnesium	ug/L	1000	988	99	85-115	
Manganese	ug/L	80	76.9	96	85-115	
Nickel	ug/L	80	82.8	103	85-115	

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## QUALITY CONTROL DATA

Project: APRIL 2012 RICO WATER SAMPLING

Pace Project No.: 60119875

**LABORATORY CONTROL SAMPLE:** 1181826

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Potassium	ug/L	1000	967	97	85-115	
Selenium	ug/L	80	77.3	97	85-115	
Silver	ug/L	80	80.5	101	85-115	
Sodium	ug/L	1000	998	100	85-115	
Thallium	ug/L	80	76.3	95	85-115	
Total Hardness by 2340B	ug/L	6620	6820	103	85-115	
Vanadium	ug/L	80	77.2	97	85-115	
Zinc	ug/L	80	78.5	98	85-115	

**MATRIX SPIKE & MATRIX SPIKE DUPLICATE:** 1181827      1181828

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Max Qual
		60119875020	Spike Conc.	Spike Conc.	Result								
Aluminum	ug/L	68.8	80	80	183	182	143	142	70-130	.6	20	M1	
Antimony	ug/L	ND	80	80	76.4	74.4	95	93	70-130	3	20		
Arsenic	ug/L	0.75	80	80	83.3	82.0	103	102	70-130	2	20		
Barium	ug/L	16.8	80	80	94.9	92.4	98	95	70-130	3	20		
Beryllium	ug/L	ND	80	80	69.1	70.0	86	88	70-130	1	20		
Cadmium	ug/L	0.15	80	80	80.6	78.2	101	98	70-130	3	20		
Calcium	ug/L	244000	1000	1000	250000	249000	622	548	70-130	.3	20	M6	
Chromium	ug/L	0.74	80	80	82.4	80.4	102	100	70-130	3	20		
Copper	ug/L	2.6	80	80	86.1	85.6	104	104	70-130	.5	20		
Iron	ug/L	2160	1000	1000	3260	3240	111	108	70-130	.7	20		
Lead	ug/L	2.2	80	80	77.0	75.6	93	92	70-130	2	20		
Magnesium	ug/L	21500	1000	1000	24600	24100	310	260	70-130	2	20	M1	
Manganese	ug/L	880	80	80	1040	1020	194	169	70-130	2	20	M1	
Nickel	ug/L	0.56	80	80	85.9	83.2	107	103	70-130	3	20		
Potassium	ug/L	2120	1000	1000	3210	3140	109	102	70-130	2	20		
Selenium	ug/L	ND	80	80	80.0	77.7	100	97	70-130	3	20		
Silver	ug/L	0.57	80	80	78.0	77.2	97	96	70-130	1	20		
Sodium	ug/L	10300	1000	1000	11600	11400	136	114	70-130	2	20	M1	
Thallium	ug/L	ND	80	80	76.1	75.4	95	94	70-130	1	20		
Total Hardness by 2340B	ug/L	697000	6620	6620	725000	721000	428	369	70-130	.5	20		
Vanadium	ug/L	0.16	80	80	83.4	80.4	104	100	70-130	4	20		
Zinc	ug/L	67.6	80	80	153	152	107	105	70-130	.7	20		

**MATRIX SPIKE SAMPLE:** 1181829

Parameter	Units	10189803002		Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
		Result	Conc.					
Aluminum	ug/L	0.21 mg/L	80		302	116	70-130	
Antimony	ug/L	0.62	80		74.2	92	70-130	
Arsenic	ug/L	0.027 mg/L	80		105	98	70-130	
Barium	ug/L		80		98.6	95	70-130	
Beryllium	ug/L	0.22	80		73.8	92	70-130	
Cadmium	ug/L	0.037 mg/L	80		116	99	70-130	

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## QUALITY CONTROL DATA

Project: APRIL 2012 RICO WATER SAMPLING

Pace Project No.: 60119875

MATRIX SPIKE SAMPLE: 1181829

Parameter	Units	10189803002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Calcium	ug/L	160 mg/L	1000	157000	-290	70-130	M6
Chromium	ug/L		80	77.4	96	70-130	
Copper	ug/L	1.3 mg/L	80	1290	41	70-130	M1
Iron	ug/L	5.4 mg/L	1000	6600	117	70-130	
Lead	ug/L	0.0037 mg/L	80	76.0	90	70-130	
Magnesium	ug/L	37.6 mg/L	1000	37500	-7	70-130	M1
Manganese	ug/L		80	6530	476	70-130	M6
Nickel	ug/L		80	93.9	100	70-130	
Potassium	ug/L	8040	1000	8900	87	70-130	
Selenium	ug/L		80	76.6	95	70-130	
Silver	ug/L		ND	33.6	42	70-130	M1
Sodium	ug/L	61200	1000	64300	309	70-130	M1
Thallium	ug/L		80	73.2	91	70-130	
Total Hardness by 2340B	ug/L	554 mg/L	6620	547000	-114	70-130	
Vanadium	ug/L		80	79.5	99	70-130	
Zinc	ug/L	10.2 mg/L	80	10200	50	70-130	M6

## QUALITY CONTROL DATA

Project: APRIL 2012 RICO WATER SAMPLING

Pace Project No.: 60119875

QC Batch:	ICPM/32009	Analysis Method:	EPA 200.8
QC Batch Method:	EPA 200.8	Analysis Description:	200.8 MET
Associated Lab Samples:	60119875001, 60119875002, 60119875003, 60119875004, 60119875005, 60119875006, 60119875007, 60119875008, 60119875009, 60119875010, 60119875011, 60119875012, 60119875013, 60119875014, 60119875015, 60119875016, 60119875017, 60119875018, 60119875019		

METHOD BLANK: 1181835

Matrix: Water

Associated Lab Samples: 60119875001, 60119875002, 60119875003, 60119875004, 60119875005, 60119875006, 60119875007, 60119875008, 60119875009, 60119875010, 60119875011, 60119875012, 60119875013, 60119875014, 60119875015, 60119875016, 60119875017, 60119875018, 60119875019

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Aluminum	ug/L	ND	4.0	05/03/12 16:35	
Antimony	ug/L	ND	0.50	05/03/12 16:35	
Arsenic	ug/L	ND	0.50	05/03/12 16:35	
Barium	ug/L	ND	0.30	05/03/12 16:35	
Beryllium	ug/L	ND	0.20	05/03/12 16:35	
Cadmium	ug/L	ND	0.080	05/03/12 16:35	
Calcium	ug/L	ND	20.0	05/03/12 16:35	
Chromium	ug/L	ND	0.50	05/03/12 16:35	
Copper	ug/L	ND	0.50	05/03/12 16:35	
Iron	ug/L	ND	50.0	05/03/12 16:35	
Lead	ug/L	ND	0.10	05/03/12 16:35	
Magnesium	ug/L	ND	5.0	05/03/12 16:35	
Manganese	ug/L	ND	0.50	05/03/12 16:35	
Nickel	ug/L	ND	0.50	05/03/12 16:35	
Potassium	ug/L	ND	20.0	05/03/12 16:35	
Selenium	ug/L	ND	0.50	05/03/12 16:35	
Silver	ug/L	ND	0.50	05/03/12 16:35	
Sodium	ug/L	ND	50.0	05/03/12 16:35	
Thallium	ug/L	ND	0.10	05/03/12 16:35	
Total Hardness by 2340B	ug/L	ND	71.0	05/03/12 16:35	
Vanadium	ug/L	ND	0.10	05/03/12 16:35	
Zinc	ug/L	ND	5.0	05/03/12 16:35	

LABORATORY CONTROL SAMPLE: 1181836

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum	ug/L	80	87.7	110	85-115	
Antimony	ug/L	80	81.1	101	85-115	
Arsenic	ug/L	80	78.2	98	85-115	
Barium	ug/L	80	80.3	100	85-115	
Cadmium	ug/L	80	82.0	103	85-115	
Calcium	ug/L	1000	1000	100	85-115	
Chromium	ug/L	80	80.4	101	85-115	
Copper	ug/L	80	81.1	101	85-115	
Iron	ug/L	1000	1020	102	85-115	
Lead	ug/L	80	73.2	91	85-115	
Magnesium	ug/L	1000	1080	108	85-115	
Manganese	ug/L	80	82.6	103	85-115	

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## QUALITY CONTROL DATA

Project: APRIL 2012 RICO WATER SAMPLING

Pace Project No.: 60119875

**LABORATORY CONTROL SAMPLE:** 1181836

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nickel	ug/L	80	79.1	99	85-115	
Potassium	ug/L	1000	1010	101	85-115	
Selenium	ug/L	80	82.6	103	85-115	
Silver	ug/L	80	78.5	98	85-115	
Sodium	ug/L	1000	1080	108	85-115	
Thallium	ug/L	80	75.5	94	85-115	
Total Hardness by 2340B	ug/L	6620	6940	105	85-115	
Vanadium	ug/L	80	80.6	101	85-115	
Zinc	ug/L	80	82.6	103	85-115	

**MATRIX SPIKE & MATRIX SPIKE DUPLICATE:** 1181837      1181838

Parameter	Units	MS Spike		MSD Spike		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		60119875001	Conc.	Conc.	Result								
Aluminum	ug/L	274	80	80	754	920	600	808	70-130	20	20	M1	
Antimony	ug/L	ND	80	80	78.6	93.0	98	116	70-130	17	20		
Arsenic	ug/L	ND	80	80	77.8	90.8	97	113	70-130	15	20		
Barium	ug/L	50.7	80	80	129	148	98	121	70-130	13	20		
Cadmium	ug/L	ND	80	80	78.6	92.8	98	116	70-130	17	20		
Calcium	ug/L	27600	1000	1000	27900	31800	28	425	70-130	13	20	M1	
Chromium	ug/L	0.89	80	80	77.6	93.0	96	115	70-130	18	20		
Copper	ug/L	1.0	80	80	80.6	92.8	100	115	70-130	14	20		
Iron	ug/L	253	1000	1000	1430	1690	118	144	70-130	17	20	M1	
Lead	ug/L	0.38	80	80	69.8	81.4	87	101	70-130	15	20		
Magnesium	ug/L	4180	1000	1000	5400	6420	122	224	70-130	17	20	M1	
Manganese	ug/L	14.4	80	80	94.6	110	100	120	70-130	15	20		
Nickel	ug/L	0.59	80	80	78.0	91.0	97	113	70-130	15	20		
Potassium	ug/L	608	1000	1000	1660	1900	105	129	70-130	13	20		
Selenium	ug/L	ND	80	80	77.7	94.0	97	117	70-130	19	20		
Silver	ug/L	ND	80	80	75.0	88.0	94	110	70-130	16	20		
Sodium	ug/L	2090	1000	1000	3180	3710	109	162	70-130	15	20	M1	
Thallium	ug/L	ND	80	80	72.3	83.7	90	105	70-130	15	20		
Total Hardness by 2340B	ug/L	86100	6620	6620	91900	106000	86	300	70-130	14	20		
Vanadium	ug/L	0.55	80	80	77.6	91.0	96	113	70-130	16	20		
Zinc	ug/L	5.4	80	80	87.2	98.6	102	116	70-130	12	20		

**MATRIX SPIKE SAMPLE:** 1181839

Parameter	Units	60119875011		Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Aluminum	ug/L		ND	80	85.6	105	70-130	
Antimony	ug/L		ND	80	80.7	101	70-130	
Arsenic	ug/L		ND	80	80.8	101	70-130	
Barium	ug/L		ND	80	78.5	98	70-130	
Cadmium	ug/L		ND	80	80.6	101	70-130	
Calcium	ug/L		ND	1000	1130	112	70-130	

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## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Project: APRIL 2012 RICO WATER SAMPLING

Pace Project No.: 60119875

MATRIX SPIKE SAMPLE:	1181839						
Parameter	Units	60119875011	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chromium	ug/L	0.54	80	81.8	102	70-130	
Copper	ug/L	ND	80	83.3	104	70-130	
Iron	ug/L	ND	1000	1100	110	70-130	
Lead	ug/L	ND	80	84.8	106	70-130	
Magnesium	ug/L	ND	1000	1020	102	70-130	
Manganese	ug/L	ND	80	82.2	103	70-130	
Nickel	ug/L	ND	80	82.1	103	70-130	
Potassium	ug/L	ND	1000	1030	103	70-130	
Selenium	ug/L	ND	80	79.3	99	70-130	
Silver	ug/L	ND	80	79.5	99	70-130	
Sodium	ug/L	460	1000	1470	101	70-130	
Thallium	ug/L	ND	80	81.5	102	70-130	
Total Hardness by 2340B	ug/L	ND	6620	7030	106	70-130	
Vanadium	ug/L	ND	80	80.5	101	70-130	
Zinc	ug/L	ND	80	81.2	101	70-130	

## QUALITY CONTROL DATA

Project: APRIL 2012 RICO WATER SAMPLING

Pace Project No.: 60119875

QC Batch:	ICPM/32214	Analysis Method:	EPA 200.8
QC Batch Method:	EPA 200.8	Analysis Description:	200.8 MET Dissolved
Associated Lab Samples:	60119875001, 60119875002, 60119875003, 60119875004, 60119875005, 60119875006, 60119875007, 60119875008, 60119875009, 60119875010, 60119875011, 60119875012, 60119875013, 60119875014, 60119875015, 60119875016, 60119875017, 60119875018, 60119875020		

METHOD BLANK: 1189305 Matrix: Water

Associated Lab Samples: 60119875001, 60119875002, 60119875003, 60119875004, 60119875005, 60119875006, 60119875007, 60119875008, 60119875009, 60119875010, 60119875011, 60119875012, 60119875013, 60119875014, 60119875015, 60119875016, 60119875017, 60119875018, 60119875020

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Aluminum, Dissolved	ug/L	ND	4.0	05/14/12 14:01	
Antimony, Dissolved	ug/L	ND	0.50	05/14/12 14:01	
Arsenic, Dissolved	ug/L	ND	0.50	05/14/12 14:01	
Barium, Dissolved	ug/L	ND	0.30	05/14/12 14:01	
Beryllium, Dissolved	ug/L	ND	0.20	05/14/12 14:01	
Cadmium, Dissolved	ug/L	ND	0.080	05/14/12 14:01	
Calcium, Dissolved	ug/L	ND	20.0	05/14/12 14:01	
Chromium, Dissolved	ug/L	ND	0.50	05/14/12 14:01	
Copper, Dissolved	ug/L	ND	0.50	05/14/12 14:01	
Iron, Dissolved	ug/L	ND	50.0	05/14/12 14:01	
Lead, Dissolved	ug/L	ND	0.10	05/14/12 14:01	
Magnesium, Dissolved	ug/L	ND	5.0	05/14/12 14:01	
Manganese, Dissolved	ug/L	0.59	0.50	05/16/12 15:07	
Nickel, Dissolved	ug/L	ND	0.50	05/14/12 14:01	
Potassium, Dissolved	ug/L	ND	20.0	05/14/12 14:01	
Selenium, Dissolved	ug/L	ND	0.50	05/14/12 14:01	
Silver, Dissolved	ug/L	ND	0.50	05/14/12 14:01	
Sodium, Dissolved	ug/L	ND	50.0	05/14/12 14:01	
Thallium, Dissolved	ug/L	ND	0.10	05/14/12 14:01	
Vanadium, Dissolved	ug/L	ND	0.10	05/14/12 14:01	
Zinc, Dissolved	ug/L	ND	5.0	05/14/12 14:01	

LABORATORY CONTROL SAMPLE: 1189306

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum, Dissolved	ug/L	80	84.4	106	85-115	
Antimony, Dissolved	ug/L	80	81.8	102	85-115	
Arsenic, Dissolved	ug/L	80	82.7	103	85-115	
Barium, Dissolved	ug/L	80	88.4	111	85-115	
Beryllium, Dissolved	ug/L	80	85.7	107	85-115	
Cadmium, Dissolved	ug/L	80	87.1	109	85-115	
Calcium, Dissolved	ug/L	1000	1090	109	85-115	
Chromium, Dissolved	ug/L	80	86.8	108	85-115	
Copper, Dissolved	ug/L	80	88.5	111	85-115	
Iron, Dissolved	ug/L	1000	1100	110	85-115	
Lead, Dissolved	ug/L	80	87.7	110	85-115	
Magnesium, Dissolved	ug/L	1000	1060	106	85-115	
Manganese, Dissolved	ug/L	80	83.1	104	85-115	

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## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Project: APRIL 2012 RICO WATER SAMPLING

Pace Project No.: 60119875

**LABORATORY CONTROL SAMPLE:** 1189306

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nickel, Dissolved	ug/L	80	87.2	109	85-115	
Potassium, Dissolved	ug/L	1000	1100	110	85-115	
Selenium, Dissolved	ug/L	80	84.1	105	85-115	
Silver, Dissolved	ug/L	80	80.2	100	85-115	
Sodium, Dissolved	ug/L	1000	1060	106	85-115	
Thallium, Dissolved	ug/L	80	89.0	111	85-115	
Vanadium, Dissolved	ug/L	80	87.1	109	85-115	
Zinc, Dissolved	ug/L	80	88.5	111	85-115	

**MATRIX SPIKE & MATRIX SPIKE DUPLICATE:** 1189307      1189308

Parameter	Units	MS Spike		MSD Spike		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Max Qual
		60119875001	Result	Conc.	Conc.								
Aluminum, Dissolved	ug/L	105	80	80	283	269	222	205	70-130	5	20	M1	
Antimony, Dissolved	ug/L	ND	80	80	83.6	81.2	104	101	70-130	3	20		
Arsenic, Dissolved	ug/L	ND	80	80	85.4	82.0	106	102	70-130	4	20		
Barium, Dissolved	ug/L	47.8	80	80	136	133	110	107	70-130	2	20		
Beryllium, Dissolved	ug/L	ND	80	80	86.2	82.8	108	104	70-130	4	20		
Cadmium, Dissolved	ug/L	ND	80	80	86.8	86.0	109	108	70-130	.9	20		
Calcium, Dissolved	ug/L	25200	1000	1000	27400	26600	218	140	70-130	3	20	M1	
Chromium, Dissolved	ug/L	1.5	80	80	88.0	85.6	108	105	70-130	3	20		
Copper, Dissolved	ug/L	1.0	80	80	89.4	86.1	110	106	70-130	4	20		
Iron, Dissolved	ug/L	89.4	1000	1000	1210	1170	112	108	70-130	4	20		
Lead, Dissolved	ug/L	0.16	80	80	86.6	84.0	108	105	70-130	3	20		
Magnesium, Dissolved	ug/L	4070	1000	1000	5130	5040	106	96	70-130	2	20		
Manganese, Dissolved	ug/L	8.6	80	80	91.8	92.4	104	105	70-130	.5	20		
Nickel, Dissolved	ug/L	0.91	80	80	87.8	84.8	109	105	70-130	3	20		
Potassium, Dissolved	ug/L	562	1000	1000	1690	1620	113	106	70-130	4	20		
Selenium, Dissolved	ug/L	ND	80	80	81.8	81.4	102	101	70-130	.5	20		
Silver, Dissolved	ug/L	0.96	80	80	78.7	76.4	97	94	70-130	3	20		
Sodium, Dissolved	ug/L	2120	1000	1000	3150	3130	103	101	70-130	.6	20		
Thallium, Dissolved	ug/L	ND	80	80	87.1	84.3	109	105	70-130	3	20		
Vanadium, Dissolved	ug/L	0.29	80	80	87.6	85.2	109	106	70-130	3	20		
Zinc, Dissolved	ug/L	ND	80	80	91.6	89.0	108	105	70-130	3	20		

**MATRIX SPIKE SAMPLE:** 1189309

Parameter	Units	60119875011		Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
		Result	Conc.					
Aluminum, Dissolved	ug/L		8.6	80	92.0	104	70-130	
Antimony, Dissolved	ug/L		ND	80	81.6	102	70-130	
Arsenic, Dissolved	ug/L		ND	80	81.6	102	70-130	
Barium, Dissolved	ug/L		0.38	80	87.1	108	70-130	
Beryllium, Dissolved	ug/L		ND	80	77.8	97	70-130	
Cadmium, Dissolved	ug/L		ND	80	83.8	105	70-130	
Calcium, Dissolved	ug/L		159	1000	1260	110	70-130	

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## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Project: APRIL 2012 RICO WATER SAMPLING

Pace Project No.: 60119875

MATRIX SPIKE SAMPLE:	1189309						
Parameter	Units	60119875011	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chromium, Dissolved	ug/L	1.1	80	85.2	105	70-130	
Copper, Dissolved	ug/L	ND	80	85.2	106	70-130	
Iron, Dissolved	ug/L	ND	1000	1070	107	70-130	
Lead, Dissolved	ug/L	ND	80	86.0	107	70-130	
Magnesium, Dissolved	ug/L	11.6	1000	1010	99	70-130	
Manganese, Dissolved	ug/L	1.0	80	81.6	101	70-130	
Nickel, Dissolved	ug/L	ND	80	84.8	106	70-130	
Potassium, Dissolved	ug/L	26.4	1000	1090	106	70-130	
Selenium, Dissolved	ug/L	ND	80	81.6	102	70-130	
Silver, Dissolved	ug/L	ND	80	74.6	93	70-130	
Sodium, Dissolved	ug/L	524	1000	1500	97	70-130	
Thallium, Dissolved	ug/L	ND	80	85.8	107	70-130	
Vanadium, Dissolved	ug/L	ND	80	84.0	105	70-130	
Zinc, Dissolved	ug/L	ND	80	87.8	105	70-130	

## QUALITY CONTROL DATA

Project: APRIL 2012 RICO WATER SAMPLING

Pace Project No.: 60119875

QC Batch:	ICPM/32215	Analysis Method:	EPA 200.8
QC Batch Method:	EPA 200.8	Analysis Description:	200.8 MET Dissolved
Associated Lab Samples:	60119875019, 60119875021, 60119875022, 60119875023, 60119875024, 60119875025, 60119875026, 60119875027, 60119875028		

METHOD BLANK:	1189310	Matrix:	Water
Associated Lab Samples:	60119875019, 60119875021, 60119875022, 60119875023, 60119875024, 60119875025, 60119875026, 60119875027, 60119875028		

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Aluminum, Dissolved	ug/L	ND	4.0	05/14/12 12:15	
Antimony, Dissolved	ug/L	ND	0.50	05/14/12 12:15	
Arsenic, Dissolved	ug/L	ND	0.50	05/14/12 12:15	
Barium, Dissolved	ug/L	ND	0.30	05/14/12 12:15	
Beryllium, Dissolved	ug/L	ND	0.20	05/16/12 09:00	
Cadmium, Dissolved	ug/L	ND	0.080	05/14/12 12:15	
Calcium, Dissolved	ug/L	ND	20.0	05/14/12 12:15	
Chromium, Dissolved	ug/L	ND	0.50	05/14/12 12:15	
Copper, Dissolved	ug/L	ND	0.50	05/14/12 12:15	
Iron, Dissolved	ug/L	ND	50.0	05/14/12 12:15	
Lead, Dissolved	ug/L	ND	0.10	05/14/12 12:15	
Magnesium, Dissolved	ug/L	ND	5.0	05/14/12 12:15	
Manganese, Dissolved	ug/L	ND	0.50	05/14/12 12:15	
Nickel, Dissolved	ug/L	ND	0.50	05/14/12 12:15	
Potassium, Dissolved	ug/L	ND	20.0	05/14/12 12:15	
Selenium, Dissolved	ug/L	ND	0.50	05/14/12 12:15	
Silver, Dissolved	ug/L	ND	0.50	05/14/12 12:15	
Sodium, Dissolved	ug/L	ND	50.0	05/14/12 12:15	
Thallium, Dissolved	ug/L	ND	0.10	05/14/12 12:15	
Vanadium, Dissolved	ug/L	ND	0.10	05/14/12 12:15	
Zinc, Dissolved	ug/L	ND	5.0	05/14/12 12:15	

LABORATORY CONTROL SAMPLE: 1189311

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum, Dissolved	ug/L	80	83.4	104	85-115	
Antimony, Dissolved	ug/L	80	79.4	99	85-115	
Arsenic, Dissolved	ug/L	80	78.9	99	85-115	
Barium, Dissolved	ug/L	80	79.4	99	85-115	
Beryllium, Dissolved	ug/L	80	78.6	98	85-115	
Cadmium, Dissolved	ug/L	80	80.3	100	85-115	
Calcium, Dissolved	ug/L	1000	990	99	85-115	
Chromium, Dissolved	ug/L	80	80.7	101	85-115	
Copper, Dissolved	ug/L	80	79.6	100	85-115	
Iron, Dissolved	ug/L	1000	1020	102	85-115	
Lead, Dissolved	ug/L	80	84.0	105	85-115	
Magnesium, Dissolved	ug/L	1000	1040	104	85-115	
Manganese, Dissolved	ug/L	80	81.2	101	85-115	
Nickel, Dissolved	ug/L	80	80.9	101	85-115	
Potassium, Dissolved	ug/L	1000	981	98	85-115	

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## QUALITY CONTROL DATA

Project: APRIL 2012 RICO WATER SAMPLING

Pace Project No.: 60119875

**LABORATORY CONTROL SAMPLE:** 1189311

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Selenium, Dissolved	ug/L	80	79.6	100	85-115	
Silver, Dissolved	ug/L	80	77.0	96	85-115	
Sodium, Dissolved	ug/L	1000	1000	100	85-115	
Thallium, Dissolved	ug/L	80	84.9	106	85-115	
Vanadium, Dissolved	ug/L	80	81.4	102	85-115	
Zinc, Dissolved	ug/L	80	81.4	102	85-115	

**MATRIX SPIKE & MATRIX SPIKE DUPLICATE:** 1189312      1189313

Parameter	Units	MS Spike		MSD Spike		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max	
		60119875021	Result	Conc.	Conc.						RPD	RPD
Aluminum, Dissolved	ug/L	5.2	80	80	85.8	106	101	125	70-130	21	20	D6
Antimony, Dissolved	ug/L	ND	80	80	81.3	83.0	102	104	70-130	2	20	
Arsenic, Dissolved	ug/L	ND	80	80	81.4	84.0	102	105	70-130	3	20	
Barium, Dissolved	ug/L	12.2	80	80	94.3	96.9	103	106	70-130	3	20	
Beryllium, Dissolved	ug/L	ND	80	80	81.7	83.6	102	104	70-130	2	20	
Cadmium, Dissolved	ug/L	0.22	80	80	79.1	83.9	99	105	70-130	6	20	
Calcium, Dissolved	ug/L	328000	1000	1000	500000	528000	17200	20000	70-130	6	20	E,M6
Chromium, Dissolved	ug/L	ND	80	80	79.8	83.9	99	104	70-130	5	20	
Copper, Dissolved	ug/L	ND	80	80	77.7	78.7	97	98	70-130	1	20	
Iron, Dissolved	ug/L	ND	1000	1000	1030	1060	102	104	70-130	2	20	
Lead, Dissolved	ug/L	ND	80	80	81.2	84.0	101	105	70-130	3	20	
Magnesium, Dissolved	ug/L	31500	1000	1000	33200	34400	178	300	70-130	4	20	M6
Manganese, Dissolved	ug/L	3640	80	80	5660	5960	2520	2890	70-130	5	20	E,M6
Nickel, Dissolved	ug/L	ND	80	80	62.3	65.8	78	82	70-130	5	20	
Potassium, Dissolved	ug/L	6960	1000	1000	7740	8080	77	112	70-130	4	20	
Selenium, Dissolved	ug/L	0.56	80	80	84.2	83.5	105	104	70-130	.8	20	
Silver, Dissolved	ug/L	ND	80	80	66.3	71.5	83	89	70-130	7	20	
Sodium, Dissolved	ug/L	8040	1000	1000	9160	9490	112	145	70-130	3	20	M6
Thallium, Dissolved	ug/L	ND	80	80	82.3	85.0	103	106	70-130	3	20	
Vanadium, Dissolved	ug/L	ND	80	80	80.2	85.1	100	106	70-130	6	20	
Zinc, Dissolved	ug/L	1410	80	80	1490	1610	92	251	70-130	8	20	M6

**MATRIX SPIKE SAMPLE:** 1189314

Parameter	Units	10190616021		Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers	
		Result							
Aluminum, Dissolved	ug/L	0.065 mg/L		80	163	123	70-130		
Antimony, Dissolved	ug/L			80	83.5	103	70-130		
Arsenic, Dissolved	ug/L	0.0075 mg/L		80	88.4	101	70-130		
Barium, Dissolved	ug/L			80	105	104	70-130		
Beryllium, Dissolved	ug/L			80	84.1	105	70-130		
Cadmium, Dissolved	ug/L	0.00081 mg/L		80	83.8	104	70-130		
Calcium, Dissolved	ug/L	18.2 mg/L	1000		19200	94	70-130		
Chromium, Dissolved	ug/L			80	84.2	104	70-130		
Copper, Dissolved	ug/L	0.089 mg/L		80	171	103	70-130		

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## QUALITY CONTROL DATA

Project: APRIL 2012 RICO WATER SAMPLING  
Pace Project No.: 60119875

MATRIX SPIKE SAMPLE:	1189314						
Parameter	Units	10190616021	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Iron, Dissolved	ug/L	0.10 mg/L	1000	1160	106	70-130	
Lead, Dissolved	ug/L	0.0017 mg/L	80	90.5	111	70-130	
Magnesium, Dissolved	ug/L	11.6 mg/L	1000	12600	102	70-130	
Manganese, Dissolved	ug/L		80	499	102	70-130	
Nickel, Dissolved	ug/L		80	83.2	101	70-130	
Potassium, Dissolved	ug/L		1000	3780	99	70-130	
Selenium, Dissolved	ug/L		80	88.8	107	70-130	
Silver, Dissolved	ug/L		ND	80	73.4	92	70-130
Sodium, Dissolved	ug/L			1000	10000	78	70-130
Thallium, Dissolved	ug/L			80	88.9	111	70-130
Vanadium, Dissolved	ug/L			80	87.0	104	70-130
Zinc, Dissolved	ug/L	0.50 mg/L	80	594	116	70-130	

## QUALITY CONTROL DATA

Project: APRIL 2012 RICO WATER SAMPLING

Pace Project No.: 60119875

QC Batch:	MERC/6744	Analysis Method:	EPA 245.1
QC Batch Method:	EPA 245.1	Analysis Description:	245.1 Mercury
Associated Lab Samples:	60119875020, 60119875021, 60119875022, 60119875023, 60119875024, 60119875025, 60119875026, 60119875027, 60119875028		

METHOD BLANK: 1182912 Matrix: Water

Associated Lab Samples: 60119875020, 60119875021, 60119875022, 60119875023, 60119875024, 60119875025, 60119875026, 60119875027, 60119875028

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	05/07/12 15:12	

LABORATORY CONTROL SAMPLE: 1182913

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	5.0	100	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1182914 1182915

Parameter	Units	MS Result	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	RPD	Qual
Mercury	ug/L	ND	5	5	4.4	5.7	88	115	85-115	27	30

MATRIX SPIKE SAMPLE: 1182916

Parameter	Units	Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	ND	5	7.2	143	85-115	M1

## QUALITY CONTROL DATA

Project: APRIL 2012 RICO WATER SAMPLING

Pace Project No.: 60119875

QC Batch:	MERC/6762	Analysis Method:	EPA 245.1
QC Batch Method:	EPA 245.1	Analysis Description:	245.1 Mercury
Associated Lab Samples:	60119875001, 60119875002, 60119875003, 60119875004, 60119875005, 60119875006, 60119875007, 60119875008, 60119875009, 60119875010, 60119875011, 60119875012, 60119875013, 60119875014, 60119875015, 60119875016, 60119875017, 60119875018, 60119875019		

METHOD BLANK: 1186076 Matrix: Water

Associated Lab Samples: 60119875001, 60119875002, 60119875003, 60119875004, 60119875005, 60119875006, 60119875007, 60119875008, 60119875009, 60119875010, 60119875011, 60119875012, 60119875013, 60119875014, 60119875015, 60119875016, 60119875017, 60119875018, 60119875019

Parameter	Units	Blank	Reporting	Analyzed	Qualifiers
		Result	Limit		
Mercury	ug/L	ND	0.20	05/03/12 13:39	

LABORATORY CONTROL SAMPLE: 1186077

Parameter	Units	Spike	LCS	LCS	% Rec	Qualifiers
		Conc.	Result	% Rec	Limits	
Mercury	ug/L	5	4.5	91	85-115	

MATRIX SPIKE &amp; MATRIX SPIKE DUPLICATE: 1186078 1186079

Parameter	Units	10188362001	MS	MSD	MS	MSD	MS	MSD	% Rec	% Rec	Max	RPD	RPD	Qual
		Result	Spike	Spike										
Mercury	ug/L	ND	5	5	5.2	5.2	104	103	85-115	1	30			

MATRIX SPIKE SAMPLE: 1186080

Parameter	Units	60119875019		Spike	MS	MS	% Rec	% Rec	Qualifiers
		Result	Conc.	Conc.	Result	% Rec	Limits		
Mercury	ug/L	ND	5	5	7.2	143	85-115	M1	

## QUALITY CONTROL DATA

Project: APRIL 2012 RICO WATER SAMPLING

Pace Project No.: 60119875

QC Batch:	MERP/6279	Analysis Method:	EPA 245.1
QC Batch Method:	EPA 245.1	Analysis Description:	245.1 Mercury - Dissolved
Associated Lab Samples:	60119875001, 60119875002, 60119875003, 60119875004, 60119875005, 60119875006, 60119875007, 60119875008, 60119875009, 60119875010, 60119875011, 60119875012, 60119875013, 60119875014, 60119875015, 60119875016, 60119875017, 60119875018, 60119875019, 60119875020		

METHOD BLANK: 998132 Matrix: Water

Associated Lab Samples: 60119875001, 60119875002, 60119875003, 60119875004, 60119875005, 60119875006, 60119875007, 60119875008, 60119875009, 60119875010, 60119875011, 60119875012, 60119875013, 60119875014, 60119875015, 60119875016, 60119875017, 60119875018, 60119875019, 60119875020

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury, Dissolved	ug/L	ND	0.20	05/15/12 14:09	

LABORATORY CONTROL SAMPLE: 998133

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury, Dissolved	ug/L	5	5.0	100	85-115	

## QUALITY CONTROL DATA

Project: APRIL 2012 RICO WATER SAMPLING  
Pace Project No.: 60119875

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QC Batch:	MERP/6280	Analysis Method:	EPA 245.1
QC Batch Method:	EPA 245.1	Analysis Description:	245.1 Mercury - Dissolved
Associated Lab Samples:	60119875021, 60119875022, 60119875023, 60119875024, 60119875025, 60119875026, 60119875027, 60119875028		

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METHOD BLANK:	998142	Matrix:	Water
Associated Lab Samples:	60119875021, 60119875022, 60119875023, 60119875024, 60119875025, 60119875026, 60119875027, 60119875028		

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Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury, Dissolved	ug/L	ND	0.20	05/15/12 15:13	

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LABORATORY CONTROL SAMPLE: 998143

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury, Dissolved	ug/L	5	5.3	105	85-115	

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## QUALITY CONTROL DATA

Project: APRIL 2012 RICO WATER SAMPLING

Pace Project No.: 60119875

QC Batch:	MPRP/17877	Analysis Method:	EPA 200.7
QC Batch Method:	EPA 200.7	Analysis Description:	200.7 Potentially Dissolved Metals
Associated Lab Samples:	60119875001, 60119875002, 60119875003, 60119875004, 60119875005, 60119875006, 60119875007, 60119875008, 60119875009, 60119875010, 60119875011, 60119875012, 60119875013, 60119875014, 60119875015, 60119875016, 60119875017, 60119875018, 60119875019, 60119875020		

METHOD BLANK: 990675 Matrix: Water

Associated Lab Samples: 60119875001, 60119875002, 60119875003, 60119875004, 60119875005, 60119875006, 60119875007, 60119875008, 60119875009, 60119875010, 60119875011, 60119875012, 60119875013, 60119875014, 60119875015, 60119875016, 60119875017, 60119875018, 60119875019, 60119875020

Parameter	Units	Blank	Reporting	Analyzed	Qualifiers
		Result	Limit		
Calcium, Dissolved	ug/L	ND	100	05/01/12 19:39	
Magnesium, Dissolved	ug/L	ND	50.0	05/01/12 19:39	
Potassium, Dissolved	ug/L	ND	500	05/01/12 19:39	
Sodium, Dissolved	ug/L	ND	500	05/01/12 19:39	

LABORATORY CONTROL SAMPLE: 990676

Parameter	Units	Spike	LCS	LCS	% Rec	Limits	Qualifiers
		Conc.	Result	% Rec			
Calcium, Dissolved	ug/L	10000	10600	106	85-115		
Magnesium, Dissolved	ug/L	10000	10300	103	85-115		
Potassium, Dissolved	ug/L	10000	9900	99	85-115		
Sodium, Dissolved	ug/L	10000	9840	98	85-115		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 990677 990678

Parameter	Units	MS	MSD	MS	MSD	% Rec	MSD	% Rec	Limits	RPD	RPD	Max
		60119875007	Spike	Spike	Result	Result	% Rec	% Rec	RPD	RPD	Qual	
Calcium, Dissolved	ug/L	45200	10000	10000	53000	53000	78	79	70-130	0	20	
Magnesium, Dissolved	ug/L	6150	10000	10000	15700	15800	96	97	70-130	1	20	
Potassium, Dissolved	ug/L	835	10000	10000	10400	10600	96	97	70-130	1	20	
Sodium, Dissolved	ug/L	3220	10000	10000	12600	12700	94	95	70-130	0	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 990679 990680

Parameter	Units	MS	MSD	MS	MSD	% Rec	MSD	% Rec	Limits	RPD	RPD	Max
		60119875013	Spike	Spike	Result	Result	% Rec	% Rec	RPD	RPD	Qual	
Calcium, Dissolved	ug/L	153000	10000	10000	164000	166000	112	130	70-130	1	20	
Magnesium, Dissolved	ug/L	20500	10000	10000	30200	30900	97	103	70-130	2	20	
Potassium, Dissolved	ug/L	2330	10000	10000	12200	12600	99	103	70-130	3	20	
Sodium, Dissolved	ug/L	3870	10000	10000	13600	14000	97	101	70-130	3	20	

## QUALITY CONTROL DATA

Project: APRIL 2012 RICO WATER SAMPLING

Pace Project No.: 60119875

QC Batch: MPRP/17878

Analysis Method: EPA 200.7

QC Batch Method: EPA 200.7

Analysis Description: 200.7 Potentially Dissolved Metals

Associated Lab Samples: 60119875021, 60119875022, 60119875023, 60119875024, 60119875025, 60119875026, 60119875027, 60119875028

METHOD BLANK: 990682

Matrix: Water

Associated Lab Samples: 60119875021, 60119875022, 60119875023, 60119875024, 60119875025, 60119875026, 60119875027, 60119875028

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Calcium, Dissolved	ug/L	ND	100	05/01/12 21:36	
Magnesium, Dissolved	ug/L	ND	50.0	05/01/12 21:36	
Potassium, Dissolved	ug/L	ND	500	05/01/12 21:36	
Sodium, Dissolved	ug/L	ND	500	05/01/12 21:36	

LABORATORY CONTROL SAMPLE: 990683

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium, Dissolved	ug/L	10000	11100	111	85-115	
Magnesium, Dissolved	ug/L	10000	9840	98	85-115	
Potassium, Dissolved	ug/L	10000	10300	103	85-115	
Sodium, Dissolved	ug/L	10000	10300	103	85-115	

MATRIX SPIKE &amp; MATRIX SPIKE DUPLICATE: 990684

990685

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	Max		
		60119875025	Spike Conc.	Spike Conc.	MS Result				RPD	RPD	Qual
Calcium, Dissolved	ug/L	453000	10000	10000	464000	456000	114	36	70-130	2	20
Magnesium, Dissolved	ug/L	57900	10000	10000	67800	66300	99	84	70-130	2	20
Potassium, Dissolved	ug/L	3220	10000	10000	12800	12600	96	94	70-130	2	20
Sodium, Dissolved	ug/L	3800	10000	10000	13300	13100	95	93	70-130	2	20

## QUALITY CONTROL DATA

Project: APRIL 2012 RICO WATER SAMPLING

Pace Project No.: 60119875

QC Batch:	MPRP/17875	Analysis Method:	EPA 200.8
QC Batch Method:	EPA 200.8	Analysis Description:	200.8 Potentially Dissolved Metals
Associated Lab Samples:	60119875001, 60119875002, 60119875003, 60119875004, 60119875005, 60119875006, 60119875007, 60119875008, 60119875009, 60119875010, 60119875011, 60119875012, 60119875013, 60119875014, 60119875015, 60119875016, 60119875017, 60119875018, 60119875019, 60119875020		

METHOD BLANK: 990663

Matrix: Water

Associated Lab Samples:	60119875001, 60119875002, 60119875003, 60119875004, 60119875005, 60119875006, 60119875007, 60119875008, 60119875009, 60119875010, 60119875011, 60119875012, 60119875013, 60119875014, 60119875015, 60119875016, 60119875017, 60119875018, 60119875019, 60119875020
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Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Aluminum, Dissolved	ug/L	ND	50.0	05/02/12 16:43	
Antimony, Dissolved	ug/L	ND	1.0	05/11/12 17:27	
Arsenic, Dissolved	ug/L	0.066J	1.0	05/02/12 13:22	
Barium, Dissolved	ug/L	ND	1.0	05/02/12 13:22	
Beryllium, Dissolved	ug/L	ND	0.50	05/02/12 16:43	
Cadmium, Dissolved	ug/L	ND	0.50	05/02/12 13:22	
Chromium, Dissolved	ug/L	ND	1.0	05/02/12 13:22	
Copper, Dissolved	ug/L	ND	1.0	05/02/12 13:22	
Iron, Dissolved	ug/L	ND	50.0	05/02/12 13:22	
Lead, Dissolved	ug/L	ND	1.0	05/02/12 13:22	
Manganese, Dissolved	ug/L	ND	1.0	05/02/12 13:22	
Nickel, Dissolved	ug/L	ND	1.0	05/02/12 13:22	
Selenium, Dissolved	ug/L	ND	1.0	05/02/12 13:22	
Silver, Dissolved	ug/L	ND	0.50	05/02/12 13:22	
Thallium, Dissolved	ug/L	ND	1.0	05/02/12 13:22	
Vanadium, Dissolved	ug/L	ND	1.0	05/02/12 13:22	
Zinc, Dissolved	ug/L	ND	10.0	05/02/12 13:22	

LABORATORY CONTROL SAMPLE: 990664

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum, Dissolved	ug/L	1000	1000	100	85-115	
Antimony, Dissolved	ug/L	40	39.3	98	85-115	
Arsenic, Dissolved	ug/L	40	41.6	104	85-115	
Barium, Dissolved	ug/L	40	40.4	101	85-115	
Beryllium, Dissolved	ug/L	40	40.3	101	85-115	
Cadmium, Dissolved	ug/L	40	40.7	102	85-115	
Chromium, Dissolved	ug/L	40	41.6	104	85-115	
Copper, Dissolved	ug/L	40	42.3	106	85-115	
Iron, Dissolved	ug/L	1000	1050	105	85-115	
Lead, Dissolved	ug/L	40	40.8	102	85-115	
Manganese, Dissolved	ug/L	40	41.6	104	85-115	
Nickel, Dissolved	ug/L	40	42.0	105	85-115	
Selenium, Dissolved	ug/L	40	41.5	104	85-115	
Silver, Dissolved	ug/L	20	20.4	102	85-115	
Thallium, Dissolved	ug/L	40	39.0	97	85-115	
Vanadium, Dissolved	ug/L	40	41.4	103	85-115	
Zinc, Dissolved	ug/L	40	41.7	104	85-115	

Date: 06/07/2012 05:38 PM

## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Project: APRIL 2012 RICO WATER SAMPLING

Pace Project No.: 60119875

MATRIX SPIKE & MATRIX SPIKE DUPLICATE:			990665										990666		
Parameter	Units	Result	MS		MSD		MS	MSD	% Rec	MSD	% Rec	% Rec	Max		Qual
			60119875008	Spike Conc.	Spike Conc.	Result							RPD	RPD	
Aluminum, Dissolved	ug/L	14.6J	1000	1000	974	981	96	97	70-130	1	20				
Antimony, Dissolved	ug/L	0.26J	40	40	39.1	39.4	97	98	70-130	1	20				
Arsenic, Dissolved	ug/L	0.43J	40	40	42.4	42.3	105	105	70-130	0	20				
Barium, Dissolved	ug/L	20.1	40	40	60.4	61.4	101	103	70-130	2	20				
Beryllium, Dissolved	ug/L	0.35J	40	40	36.1	36.9	89	91	70-130	2	20				
Cadmium, Dissolved	ug/L	16.5	40	40	57.2	57.0	102	101	70-130	0	20				
Chromium, Dissolved	ug/L	0.84J	40	40	41.1	41.1	101	101	70-130	0	20				
Copper, Dissolved	ug/L	7.4	40	40	45.5	45.6	95	95	70-130	0	20				
Iron, Dissolved	ug/L	1110	1000	1000	2110	2140	100	102	70-130	1	20				
Lead, Dissolved	ug/L	4.7	40	40	45.2	45.4	101	102	70-130	0	20				
Manganese, Dissolved	ug/L	2040	40	40	2060	2090	30	120	70-130	2	20	M1			
Nickel, Dissolved	ug/L	4.1	40	40	42.8	42.8	97	97	70-130	0	20				
Selenium, Dissolved	ug/L	ND	40	40	41.4	41.7	103	104	70-130	1	20				
Silver, Dissolved	ug/L	ND	20	20	19.6	19.6	98	98	70-130	0	20				
Thallium, Dissolved	ug/L	0.060J	40	40	39.2	39.4	98	98	70-130	1	20				
Vanadium, Dissolved	ug/L	ND	40	40	40.4	41.4	101	103	70-130	2	20				
Zinc, Dissolved	ug/L	3310	40	40	3320	3350	32	110	70-130	1	20	M1			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE:			990667										990668		
Parameter	Units	Result	MS		MSD		MS	MSD	% Rec	MSD	% Rec	% Rec	Max		Qual
			60119875014	Spike Conc.	Spike Conc.	Result							RPD	RPD	
Aluminum, Dissolved	ug/L	8.3J	1000	1000	1000	998	99	99	70-130	0	20				
Antimony, Dissolved	ug/L	0.10J	40	40	38.6	39.3	96	98	70-130	2	20				
Arsenic, Dissolved	ug/L	0.48J	40	40	42.4	42.6	105	105	70-130	0	20				
Barium, Dissolved	ug/L	20.5	40	40	61.2	61.2	102	102	70-130	0	20				
Beryllium, Dissolved	ug/L	ND	40	40	38.7	38.4	97	96	70-130	1	20				
Cadmium, Dissolved	ug/L	0.17J	40	40	40.4	40.4	101	101	70-130	0	20				
Chromium, Dissolved	ug/L	0.96J	40	40	41.7	41.5	102	101	70-130	0	20				
Copper, Dissolved	ug/L	0.65J	40	40	38.7	38.8	95	95	70-130	0	20				
Iron, Dissolved	ug/L	798	1000	1000	1820	1820	102	102	70-130	0	20				
Lead, Dissolved	ug/L	3.5	40	40	44.7	44.6	103	103	70-130	0	20				
Manganese, Dissolved	ug/L	465	40	40	508	501	106	89	70-130	1	20				
Nickel, Dissolved	ug/L	0.72J	40	40	39.4	39.6	97	97	70-130	0	20				
Selenium, Dissolved	ug/L	ND	40	40	42.3	42.3	106	106	70-130	0	20				
Silver, Dissolved	ug/L	ND	20	20	20.0	19.9	100	99	70-130	1	20				
Thallium, Dissolved	ug/L	ND	40	40	39.8	39.8	99	100	70-130	0	20				
Vanadium, Dissolved	ug/L	ND	40	40	40.9	41.4	102	104	70-130	1	20				
Zinc, Dissolved	ug/L	33.3	40	40	73.5	72.4	100	98	70-130	1	20				

## QUALITY CONTROL DATA

Project: APRIL 2012 RICO WATER SAMPLING

Pace Project No.: 60119875

QC Batch:	MPRP/17876	Analysis Method:	EPA 200.8
QC Batch Method:	EPA 200.8	Analysis Description:	200.8 Potentially Dissolved Metals
Associated Lab Samples:	60119875021, 60119875022, 60119875023, 60119875024, 60119875025, 60119875026, 60119875027, 60119875028		

METHOD BLANK:	990669	Matrix:	Water
Associated Lab Samples:	60119875021, 60119875022, 60119875023, 60119875024, 60119875025, 60119875026, 60119875027, 60119875028		

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Aluminum, Dissolved	ug/L	ND	50.0	05/02/12 19:00	
Antimony, Dissolved	ug/L	ND	1.0	05/11/12 18:58	
Arsenic, Dissolved	ug/L	ND	1.0	05/02/12 19:00	
Barium, Dissolved	ug/L	ND	1.0	05/02/12 19:00	
Beryllium, Dissolved	ug/L	ND	0.50	05/02/12 19:00	
Cadmium, Dissolved	ug/L	ND	0.50	05/02/12 19:00	
Chromium, Dissolved	ug/L	0.52J	1.0	05/02/12 19:00	
Copper, Dissolved	ug/L	0.23J	1.0	05/02/12 19:00	
Iron, Dissolved	ug/L	ND	50.0	05/02/12 19:00	
Lead, Dissolved	ug/L	ND	1.0	05/02/12 19:00	
Manganese, Dissolved	ug/L	ND	1.0	05/03/12 07:58	
Nickel, Dissolved	ug/L	ND	1.0	05/02/12 19:00	
Selenium, Dissolved	ug/L	ND	1.0	05/03/12 11:10	
Silver, Dissolved	ug/L	ND	0.50	05/02/12 19:00	
Thallium, Dissolved	ug/L	ND	1.0	05/02/12 19:00	
Vanadium, Dissolved	ug/L	ND	1.0	05/02/12 19:00	
Zinc, Dissolved	ug/L	ND	10.0	05/02/12 19:00	

LABORATORY CONTROL SAMPLE: 990670

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum, Dissolved	ug/L	1000	1020	102	85-115	
Antimony, Dissolved	ug/L	40	38.8	97	85-115	
Arsenic, Dissolved	ug/L	40	40.8	102	85-115	
Barium, Dissolved	ug/L	40	39.8	99	85-115	
Beryllium, Dissolved	ug/L	40	40.6	102	85-115	
Cadmium, Dissolved	ug/L	40	40.1	100	85-115	
Chromium, Dissolved	ug/L	40	40.7	102	85-115	
Copper, Dissolved	ug/L	40	40.3	101	85-115	
Iron, Dissolved	ug/L	1000	1020	102	85-115	
Lead, Dissolved	ug/L	40	40.4	101	85-115	
Manganese, Dissolved	ug/L	40	40.7	102	85-115	
Nickel, Dissolved	ug/L	40	39.8	100	85-115	
Selenium, Dissolved	ug/L	40	41.8	104	85-115	
Silver, Dissolved	ug/L	20	20.0	100	85-115	
Thallium, Dissolved	ug/L	40	38.4	96	85-115	
Vanadium, Dissolved	ug/L	40	40.7	102	85-115	
Zinc, Dissolved	ug/L	40	40.0	100	85-115	

## QUALITY CONTROL DATA

Project: APRIL 2012 RICO WATER SAMPLING

Pace Project No.: 60119875

Parameter	Units	MS		MSD		MS	MSD	% Rec	MSD	% Rec	% Rec	Max	
		60119875026	Result	Spike	Conc.							RPD	RPD
Aluminum, Dissolved	ug/L	37.5J	1000	1000	997	986	96	95	70-130	1	20		
Antimony, Dissolved	ug/L	0.17J	40	40	40.7	40.5	101	101	70-130	0	20		
Arsenic, Dissolved	ug/L	6.4	40	40	48.6	48.4	105	105	70-130	0	20		
Barium, Dissolved	ug/L	214	40	40	263	261	122	118	70-130	1	20		
Beryllium, Dissolved	ug/L	ND	40	40	35.3	34.9	88	87	70-130	1	20		
Cadmium, Dissolved	ug/L	ND	40	40	38.9	38.3	97	96	70-130	1	20		
Chromium, Dissolved	ug/L	0.68J	40	40	39.4	39.1	97	96	70-130	1	20		
Copper, Dissolved	ug/L	4.0	40	40	40.8	40.2	92	91	70-130	1	20		
Iron, Dissolved	ug/L	46.7J	1000	1000	1010	1010	96	97	70-130	0	20		
Lead, Dissolved	ug/L	0.95J	40	40	40.9	40.9	100	100	70-130	0	20		
Manganese, Dissolved	ug/L	1.7	40	40	40.2	40.4	96	97	70-130	0	20		
Nickel, Dissolved	ug/L	ND	40	40	36.3	36.3	91	91	70-130	0	20		
Selenium, Dissolved	ug/L	0.44J	40	40	43.1	43.0	107	106	70-130	0	20		
Silver, Dissolved	ug/L	ND	20	20	18.9	18.8	94	94	70-130	0	20		
Thallium, Dissolved	ug/L	ND	40	40	37.8	37.9	94	95	70-130	0	20		
Vanadium, Dissolved	ug/L	ND	40	40	40.5	39.8	101	99	70-130	2	20		
Zinc, Dissolved	ug/L	3.0J	40	40	39.0	38.3	90	88	70-130	2	20		

## QUALITY CONTROL DATA

Project: APRIL 2012 RICO WATER SAMPLING

Pace Project No.: 60119875

QC Batch:	MT/8632	Analysis Method:	SM 2510B
QC Batch Method:	SM 2510B	Analysis Description:	2510B Specific Conductance
Associated Lab Samples:	60119875001, 60119875002, 60119875003, 60119875004, 60119875005, 60119875006, 60119875007, 60119875008, 60119875009, 60119875010, 60119875011, 60119875012, 60119875013, 60119875014, 60119875015, 60119875016, 60119875017, 60119875018, 60119875019, 60119875020		

METHOD BLANK: 1186121 Matrix: Water

Associated Lab Samples: 60119875001, 60119875002, 60119875003, 60119875004, 60119875005, 60119875006, 60119875007, 60119875008, 60119875009, 60119875010, 60119875011, 60119875012, 60119875013, 60119875014, 60119875015, 60119875016, 60119875017, 60119875018, 60119875019, 60119875020

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Specific Conductance	umhos/cm	ND	10.0	04/30/12 17:23	

LABORATORY CONTROL SAMPLE: 1186122

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Specific Conductance	umhos/cm	1000	1010	101	90-110	

SAMPLE DUPLICATE: 1186123

Parameter	Units	60119875002 Result	Dup Result	RPD	Max RPD	Qualifiers
Specific Conductance	umhos/cm	195	205	5	20	

SAMPLE DUPLICATE: 1186124

Parameter	Units	60119875012 Result	Dup Result	RPD	Max RPD	Qualifiers
Specific Conductance	umhos/cm	261	263	.8	20	

## QUALITY CONTROL DATA

Project: APRIL 2012 RICO WATER SAMPLING

Pace Project No.: 60119875

QC Batch:	MT/8633	Analysis Method:	SM 2510B
QC Batch Method:	SM 2510B	Analysis Description:	2510B Specific Conductance
Associated Lab Samples:	60119875021, 60119875022, 60119875023, 60119875024, 60119875025, 60119875026, 60119875027, 60119875028		

METHOD BLANK: 1186127 Matrix: Water

Associated Lab Samples: 60119875021, 60119875022, 60119875023, 60119875024, 60119875025, 60119875026, 60119875027, 60119875028

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Specific Conductance	umhos/cm	ND	10.0	04/30/12 18:08	

LABORATORY CONTROL SAMPLE: 1186128

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Specific Conductance	umhos/cm	1000	998	100	90-110	

SAMPLE DUPLICATE: 1186129

Parameter	Units	60119875022 Result	Dup Result	RPD	Max RPD	Qualifiers
Specific Conductance	umhos/cm	3950	3900	1	20	

SAMPLE DUPLICATE: 1186130

Parameter	Units	10189720008 Result	Dup Result	RPD	Max RPD	Qualifiers
Specific Conductance	umhos/cm	311	295	5	20	

## QUALITY CONTROL DATA

Project: APRIL 2012 RICO WATER SAMPLING

Pace Project No.: 60119875

QC Batch:	WET/34787	Analysis Method:	SM 2320B
QC Batch Method:	SM 2320B	Analysis Description:	2320B Alkalinity
Associated Lab Samples:	60119875001, 60119875002, 60119875003, 60119875004		

METHOD BLANK: 989967   Matrix: Water

Associated Lab Samples: 60119875001, 60119875002, 60119875003, 60119875004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Alkalinity, Carbonate (CaCO <sub>3</sub> )	mg/L	ND	20.0	04/30/12 09:30	
Alkalinity, Total as CaCO <sub>3</sub>	mg/L	ND	20.0	04/30/12 09:30	
Alkalinity,Bicarbonate (CaCO <sub>3</sub> )	mg/L	ND	20.0	04/30/12 09:30	

LABORATORY CONTROL SAMPLE: 989968

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO <sub>3</sub>	mg/L	500	510	102	90-110	

SAMPLE DUPLICATE: 989969

Parameter	Units	60119757004 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Carbonate (CaCO <sub>3</sub> )	mg/L	4.0J	4J		24	
Alkalinity, Total as CaCO <sub>3</sub>	mg/L	136	134	1	9	
Alkalinity,Bicarbonate (CaCO <sub>3</sub> )	mg/L	132	130	2	9	

SAMPLE DUPLICATE: 989970

Parameter	Units	60119920004 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Carbonate (CaCO <sub>3</sub> )	mg/L		ND			
Alkalinity, Total as CaCO <sub>3</sub>	mg/L	230	228	1	9	
Alkalinity,Bicarbonate (CaCO <sub>3</sub> )	mg/L		228			

## QUALITY CONTROL DATA

Project: APRIL 2012 RICO WATER SAMPLING

Pace Project No.: 60119875

QC Batch:	WET/34807	Analysis Method:	SM 2320B
QC Batch Method:	SM 2320B	Analysis Description:	2320B Alkalinity
Associated Lab Samples:	60119875005, 60119875006, 60119875007, 60119875008, 60119875009, 60119875010, 60119875011, 60119875012, 60119875013, 60119875014, 60119875015, 60119875016, 60119875017, 60119875018, 60119875019, 60119875020, 60119875021, 60119875022, 60119875023, 60119875024		

METHOD BLANK: 990574 Matrix: Water

Associated Lab Samples:	60119875005, 60119875006, 60119875007, 60119875008, 60119875009, 60119875010, 60119875011, 60119875012, 60119875013, 60119875014, 60119875015, 60119875016, 60119875017, 60119875018, 60119875019, 60119875020, 60119875021, 60119875022, 60119875023, 60119875024		
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Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Alkalinity, Carbonate (CaCO3)	mg/L	ND	20.0	05/01/12 10:00	
Alkalinity, Total as CaCO3	mg/L	ND	20.0	05/01/12 10:00	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	20.0	05/01/12 10:00	

LABORATORY CONTROL SAMPLE: 990575

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	500	480	96	90-110	

SAMPLE DUPLICATE: 990576

Parameter	Units	60119875006 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Carbonate (CaCO3)	mg/L	ND	ND		24	
Alkalinity, Total as CaCO3	mg/L	144	146	1	9	
Alkalinity,Bicarbonate (CaCO3)	mg/L	144	146	1	9	

SAMPLE DUPLICATE: 990577

Parameter	Units	60119875013 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Carbonate (CaCO3)	mg/L	ND	ND		24	
Alkalinity, Total as CaCO3	mg/L	176	176	0	9	
Alkalinity,Bicarbonate (CaCO3)	mg/L	176	176	0	9	

## QUALITY CONTROL DATA

Project: APRIL 2012 RICO WATER SAMPLING

Pace Project No.: 60119875

QC Batch:	WET/34828	Analysis Method:	SM 2320B
QC Batch Method:	SM 2320B	Analysis Description:	2320B Alkalinity
Associated Lab Samples:	60119875025, 60119875026, 60119875027, 60119875028		

METHOD BLANK: 991151   Matrix: Water

Associated Lab Samples: 60119875025, 60119875026, 60119875027, 60119875028

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Alkalinity, Carbonate (CaCO <sub>3</sub> )	mg/L	ND	20.0	05/03/12 09:20	
Alkalinity, Total as CaCO <sub>3</sub>	mg/L	ND	20.0	05/03/12 09:20	
Alkalinity,Bicarbonate (CaCO <sub>3</sub> )	mg/L	ND	20.0	05/03/12 09:20	

LABORATORY CONTROL SAMPLE: 991152

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO <sub>3</sub>	mg/L	500	530	106	90-110	

SAMPLE DUPLICATE: 991153

Parameter	Units	60119875026 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Carbonate (CaCO <sub>3</sub> )	mg/L	456	468	3	24	
Alkalinity, Total as CaCO <sub>3</sub>	mg/L	486	484	0	9	
Alkalinity,Bicarbonate (CaCO <sub>3</sub> )	mg/L	ND	ND		9	

SAMPLE DUPLICATE: 991154

Parameter	Units	60120103001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Carbonate (CaCO <sub>3</sub> )	mg/L		ND			
Alkalinity, Total as CaCO <sub>3</sub>	mg/L		132	134	2	9
Alkalinity,Bicarbonate (CaCO <sub>3</sub> )	mg/L			134		

## QUALITY CONTROL DATA

Project: APRIL 2012 RICO WATER SAMPLING

Pace Project No.: 60119875

QC Batch:	WET/34700	Analysis Method:	SM 2540C
QC Batch Method:	SM 2540C	Analysis Description:	2540C Total Dissolved Solids
Associated Lab Samples:	60119875001, 60119875002, 60119875003, 60119875004, 60119875005, 60119875006, 60119875007, 60119875008, 60119875009, 60119875010, 60119875011, 60119875012, 60119875013, 60119875014, 60119875015		

METHOD BLANK: 986621 Matrix: Water

Associated Lab Samples: 60119875001, 60119875002, 60119875003, 60119875004, 60119875005, 60119875006, 60119875007, 60119875008, 60119875009, 60119875010, 60119875011, 60119875012, 60119875013, 60119875014, 60119875015

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	5.0	04/24/12 11:39	

SAMPLE DUPLICATE: 986622

Parameter	Units	60119875004 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	497	492	1	17	

SAMPLE DUPLICATE: 986623

Parameter	Units	60119875010 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	155	159	3	17	

## QUALITY CONTROL DATA

Project: APRIL 2012 RICO WATER SAMPLING

Pace Project No.: 60119875

QC Batch:	WET/34719	Analysis Method:	SM 2540C
QC Batch Method:	SM 2540C	Analysis Description:	2540C Total Dissolved Solids
Associated Lab Samples:	60119875016, 60119875017, 60119875018, 60119875019, 60119875020, 60119875021, 60119875022, 60119875023, 60119875024, 60119875025, 60119875026, 60119875027, 60119875028		

METHOD BLANK:	987262	Matrix:	Water
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Associated Lab Samples:	60119875016, 60119875017, 60119875018, 60119875019, 60119875020, 60119875021, 60119875022, 60119875023, 60119875024, 60119875025, 60119875026, 60119875027, 60119875028		
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Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	5.0	04/25/12 10:12	

SAMPLE DUPLICATE: 987263

Parameter	Units	Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	60119947001	726	718	1	17

SAMPLE DUPLICATE: 987264

Parameter	Units	Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	60119875019	1030	1040	1	17

## QUALITY CONTROL DATA

Project: APRIL 2012 RICO WATER SAMPLING  
Pace Project No.: 60119875

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QC Batch:	WET/34698	Analysis Method:	SM 2540D
QC Batch Method:	SM 2540D	Analysis Description:	2540D Total Suspended Solids
Associated Lab Samples:	60119875001, 60119875002, 60119875003, 60119875004, 60119875005, 60119875006, 60119875007, 60119875008, 60119875009, 60119875010, 60119875011		

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METHOD BLANK:	986615	Matrix:	Water
Associated Lab Samples:	60119875001, 60119875002, 60119875003, 60119875004, 60119875005, 60119875006, 60119875007, 60119875008, 60119875009, 60119875010, 60119875011		

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Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Suspended Solids	mg/L	ND	5.0	04/24/12 08:25	

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SAMPLE DUPLICATE: 986616

Parameter	Units	60119837001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Suspended Solids	mg/L	27.0	24.0	12	25	

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SAMPLE DUPLICATE: 986617

Parameter	Units	60119875009 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Suspended Solids	mg/L	5.0	6.0	18	25	

## QUALITY CONTROL DATA

Project: APRIL 2012 RICO WATER SAMPLING

Pace Project No.: 60119875

QC Batch:	WET/34699	Analysis Method:	SM 2540D
QC Batch Method:	SM 2540D	Analysis Description:	2540D Total Suspended Solids
Associated Lab Samples:	60119875012, 60119875013, 60119875014, 60119875015, 60119875016, 60119875017, 60119875018, 60119875019, 60119875020, 60119875021, 60119875022, 60119875023		

METHOD BLANK:	986618	Matrix:	Water
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Associated Lab Samples:	60119875012, 60119875013, 60119875014, 60119875015, 60119875016, 60119875017, 60119875018, 60119875019, 60119875020, 60119875021, 60119875022, 60119875023
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Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Suspended Solids	mg/L	ND	5.0	04/24/12 08:30	

SAMPLE DUPLICATE: 986619

Parameter	Units	60119779002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Suspended Solids	mg/L	25.0	25.0	0	25	

SAMPLE DUPLICATE: 986620

Parameter	Units	60119875014 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Suspended Solids	mg/L	198	202	2	25	

## QUALITY CONTROL DATA

Project: APRIL 2012 RICO WATER SAMPLING

Pace Project No.: 60119875

QC Batch:	WET/34718	Analysis Method:	SM 2540D
QC Batch Method:	SM 2540D	Analysis Description:	2540D Total Suspended Solids
Associated Lab Samples:	60119875024, 60119875025, 60119875026, 60119875027, 60119875028		

METHOD BLANK:	987259	Matrix:	Water
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Associated Lab Samples: 60119875024, 60119875025, 60119875026, 60119875027, 60119875028

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Suspended Solids	mg/L	ND	5.0	04/25/12 10:00	

SAMPLE DUPLICATE: 987260

Parameter	Units	60119929001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Suspended Solids	mg/L	7.0	6.0	15	25	

SAMPLE DUPLICATE: 987261

Parameter	Units	60119821002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Suspended Solids	mg/L	104	122	16	25	

## QUALITY CONTROL DATA

Project: APRIL 2012 RICO WATER SAMPLING

Pace Project No.: 60119875

QC Batch:	WETA/2522	Analysis Method:	EPA 300.0
QC Batch Method:	EPA 300.0	Analysis Description:	300.0 IC Anions
Associated Lab Samples:	60119875020, 60119875021, 60119875022, 60119875023, 60119875024, 60119875025, 60119875026, 60119875027, 60119875028		

METHOD BLANK: 112477 Matrix: Water

Associated Lab Samples: 60119875020, 60119875021, 60119875022, 60119875023, 60119875024, 60119875025, 60119875026, 60119875027, 60119875028

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Sulfate	mg/L	ND	1.0	04/25/12 20:21	

LABORATORY CONTROL SAMPLE: 112478

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfate	mg/L	15	15.0	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 112479 112480

Parameter	Units	2511823001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	RPD	Qual
			Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	
Sulfate	mg/L	27.5	30	30	57.7	58.6	101	104	90-110	2	10	

MATRIX SPIKE SAMPLE: 112481

Parameter	Units	2511824005 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfate	mg/L	453000 ug/L	1500	1990	102	90-110	

## QUALITY CONTROL DATA

Project: APRIL 2012 RICO WATER SAMPLING

Pace Project No.: 60119875

QC Batch: WETA/2526 Analysis Method: EPA 300.0

QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions

Associated Lab Samples: 60119875001, 60119875002, 60119875003, 60119875004, 60119875005, 60119875006, 60119875007, 60119875008, 60119875009, 60119875010, 60119875011, 60119875012, 60119875013, 60119875014, 60119875015, 60119875016, 60119875017, 60119875018, 60119875019

METHOD BLANK: 112788 Matrix: Water

Associated Lab Samples: 60119875001, 60119875002, 60119875003, 60119875004, 60119875005, 60119875006, 60119875007, 60119875008, 60119875009, 60119875010, 60119875011, 60119875012, 60119875013, 60119875014, 60119875015, 60119875016, 60119875017, 60119875018, 60119875019

Parameter	Units	Blank	Reporting	Analyzed	Qualifiers
		Result	Limit		
Sulfate	mg/L	ND	1.0	04/27/12 11:37	

LABORATORY CONTROL SAMPLE: 112789

Parameter	Units	Spike	LCS	LCS	% Rec	Qualifiers
		Conc.	Result	% Rec	Limits	
Sulfate	mg/L	15	14.6	97	90-110	

MATRIX SPIKE &amp; MATRIX SPIKE DUPLICATE: 112790 112791

Parameter	Units	60119875001	MS	MSD	MS	MSD	% Rec	% Rec	Max	RPD	RPD	Qual
		Result	Spike	Spike								
Sulfate	mg/L	15.9	75	75	89.7	90.1	99	99	90-110	.4	10	

MATRIX SPIKE SAMPLE: 112792

Parameter	Units	60119875011		Spike	MS	MS	% Rec	% Rec	Qualifiers
		Result	Conc.	Conc.	Result	% Rec	Limits		
Sulfate	mg/L	ND	15	15	14.5	96	90-110		

## QUALITY CONTROL DATA

Project: APRIL 2012 RICO WATER SAMPLING

Pace Project No.: 60119875

QC Batch:	WETA/19996	Analysis Method:	SM 4500-CN-E
QC Batch Method:	SM 4500-CN-E	Analysis Description:	4500CNE Cyanide, Total
Associated Lab Samples:	60119875001, 60119875002, 60119875003, 60119875004, 60119875005, 60119875006, 60119875007, 60119875008, 60119875009, 60119875010, 60119875011, 60119875012, 60119875013		

METHOD BLANK: 988733 Matrix: Water

Associated Lab Samples: 60119875001, 60119875002, 60119875003, 60119875004, 60119875005, 60119875006, 60119875007,  
60119875008, 60119875009, 60119875010, 60119875011, 60119875012, 60119875013

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Cyanide	mg/L	ND	0.0050	04/27/12 21:44	

LABORATORY CONTROL SAMPLE: 988734

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Cyanide	mg/L	.1	0.093	93	69-126	

MATRIX SPIKE SAMPLE: 988735

Parameter	Units	60120132001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Cyanide	mg/L	ND	.1	0.072	71	41-136	

SAMPLE DUPLICATE: 988736

Parameter	Units	60119742001 Result	Dup Result	Max RPD	Qualifiers
Cyanide	mg/L	0.0063	ND	26	

## QUALITY CONTROL DATA

Project: APRIL 2012 RICO WATER SAMPLING

Pace Project No.: 60119875

QC Batch: WETA/20048 Analysis Method: SM 4500-CN-E

QC Batch Method: SM 4500-CN-E Analysis Description: 4500CNE Cyanide, Total

Associated Lab Samples: 60119875014, 60119875015, 60119875016, 60119875017, 60119875018, 60119875019, 60119875020, 60119875021, 60119875022, 60119875023, 60119875024, 60119875025, 60119875026, 60119875027, 60119875028

METHOD BLANK: 990927 Matrix: Water

Associated Lab Samples: 60119875014, 60119875015, 60119875016, 60119875017, 60119875018, 60119875019, 60119875020, 60119875021, 60119875022, 60119875023, 60119875024, 60119875025, 60119875026, 60119875027, 60119875028

Parameter	Units	Blank	Reporting	Analyzed	Qualifiers
		Result	Limit		
Cyanide	mg/L	ND	0.0050	05/02/12 18:24	

LABORATORY CONTROL SAMPLE: 990928

Parameter	Units	Spike	LCS	LCS	% Rec	Qualifiers
		Conc.	Result	% Rec	Limits	
Cyanide	mg/L	.1	0.091	91	69-126	

MATRIX SPIKE SAMPLE: 990929

Parameter	Units	60119875014	Spike	MS	MS	% Rec	Qualifiers
		Result	Conc.	Result	% Rec	Limits	
Cyanide	mg/L	ND	.1	0.090	90	41-136	

SAMPLE DUPLICATE: 990930

Parameter	Units	60119875015	Dup	Max	Qualifiers
		Result	Result	RPD	
Cyanide	mg/L	ND	.0032J	26	

## QUALIFIERS

Project: APRIL 2012 RICO WATER SAMPLING

Pace Project No.: 60119875

### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PRL - Pace Reporting Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

### LABORATORIES

PASI-K Pace Analytical Services - Kansas City

PASI-M Pace Analytical Services - Minneapolis

PASI-S Pace Analytical Services - Seattle

### ANALYTE QUALIFIERS

B Analyte was detected in the associated method blank.

D3 Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.

D6 The relative percent difference (RPD) between the sample and sample duplicate exceeded laboratory control limits.

E Analyte concentration exceeded the calibration range. The reported result is estimated.

M0 Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

M6 Matrix spike and Matrix spike duplicate recovery not evaluated against control limits due to sample dilution.

## QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: APRIL 2012 RICO WATER SAMPLING  
Pace Project No.: 60119875

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60119875001	DR-1	EPA 200.7	MPRP/17877	EPA 200.7	ICP/15101
60119875002	DR-2	EPA 200.7	MPRP/17877	EPA 200.7	ICP/15101
60119875003	DR-3	EPA 200.7	MPRP/17877	EPA 200.7	ICP/15101
60119875004	DR-4	EPA 200.7	MPRP/17877	EPA 200.7	ICP/15101
60119875005	DR-5	EPA 200.7	MPRP/17877	EPA 200.7	ICP/15101
60119875006	DR-6	EPA 200.7	MPRP/17877	EPA 200.7	ICP/15101
60119875007	DR-7	EPA 200.7	MPRP/17877	EPA 200.7	ICP/15101
60119875008	DR-8	EPA 200.7	MPRP/17877	EPA 200.7	ICP/15101
60119875009	DR-4-SW	EPA 200.7	MPRP/17877	EPA 200.7	ICP/15101
60119875010	DR-G	EPA 200.7	MPRP/17877	EPA 200.7	ICP/15101
60119875011	FB	EPA 200.7	MPRP/17877	EPA 200.7	ICP/15101
60119875012	GW-1	EPA 200.7	MPRP/17877	EPA 200.7	ICP/15101
60119875013	GW-3	EPA 200.7	MPRP/17877	EPA 200.7	ICP/15101
60119875014	GW-4	EPA 200.7	MPRP/17877	EPA 200.7	ICP/15101
60119875015	GW-5	EPA 200.7	MPRP/17877	EPA 200.7	ICP/15101
60119875016	GW-7	EPA 200.7	MPRP/17877	EPA 200.7	ICP/15101
60119875017	MW-1 SHALLOW	EPA 200.7	MPRP/17877	EPA 200.7	ICP/15101
60119875018	MW-1 DEEP	EPA 200.7	MPRP/17877	EPA 200.7	ICP/15101
60119875019	MW-2 DEEP	EPA 200.7	MPRP/17877	EPA 200.7	ICP/15101
60119875020	MW-3 DEEP	EPA 200.7	MPRP/17877	EPA 200.7	ICP/15101
60119875021	EB-1	EPA 200.7	MPRP/17878	EPA 200.7	ICP/15102
60119875022	EB-2	EPA 200.7	MPRP/17878	EPA 200.7	ICP/15102
60119875023	MW-4 SHALLOW	EPA 200.7	MPRP/17878	EPA 200.7	ICP/15102
60119875024	MW-4 DEEP	EPA 200.7	MPRP/17878	EPA 200.7	ICP/15102
60119875025	MW-5 SHALLOW	EPA 200.7	MPRP/17878	EPA 200.7	ICP/15102
60119875026	MW-5 DEEP	EPA 200.7	MPRP/17878	EPA 200.7	ICP/15102
60119875027	MW-6 SHALLOW	EPA 200.7	MPRP/17878	EPA 200.7	ICP/15102
60119875028	MW-6 DEEP	EPA 200.7	MPRP/17878	EPA 200.7	ICP/15102
60119875001	DR-1	EPA 200.8	ICPM/32009	EPA 200.8	ICPM/12718
60119875002	DR-2	EPA 200.8	ICPM/32009	EPA 200.8	ICPM/12718
60119875003	DR-3	EPA 200.8	ICPM/32009	EPA 200.8	ICPM/12718
60119875004	DR-4	EPA 200.8	ICPM/32009	EPA 200.8	ICPM/12718
60119875005	DR-5	EPA 200.8	ICPM/32009	EPA 200.8	ICPM/12718
60119875006	DR-6	EPA 200.8	ICPM/32009	EPA 200.8	ICPM/12718
60119875007	DR-7	EPA 200.8	ICPM/32009	EPA 200.8	ICPM/12718
60119875008	DR-8	EPA 200.8	ICPM/32009	EPA 200.8	ICPM/12718
60119875009	DR-4-SW	EPA 200.8	ICPM/32009	EPA 200.8	ICPM/12718
60119875010	DR-G	EPA 200.8	ICPM/32009	EPA 200.8	ICPM/12718
60119875011	FB	EPA 200.8	ICPM/32009	EPA 200.8	ICPM/12718
60119875012	GW-1	EPA 200.8	ICPM/32009	EPA 200.8	ICPM/12718
60119875013	GW-3	EPA 200.8	ICPM/32009	EPA 200.8	ICPM/12718
60119875014	GW-4	EPA 200.8	ICPM/32009	EPA 200.8	ICPM/12718
60119875015	GW-5	EPA 200.8	ICPM/32009	EPA 200.8	ICPM/12718
60119875016	GW-7	EPA 200.8	ICPM/32009	EPA 200.8	ICPM/12718
60119875017	MW-1 SHALLOW	EPA 200.8	ICPM/32009	EPA 200.8	ICPM/12718
60119875018	MW-1 DEEP	EPA 200.8	ICPM/32009	EPA 200.8	ICPM/12718
60119875019	MW-2 DEEP	EPA 200.8	ICPM/32009	EPA 200.8	ICPM/12718

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**QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Project: APRIL 2012 RICO WATER SAMPLING  
Pace Project No.: 60119875

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60119875020	MW-3 DEEP	EPA 200.8	ICPM/32007	EPA 200.8	ICPM/12713
60119875021	EB-1	EPA 200.8	ICPM/32007	EPA 200.8	ICPM/12713
60119875022	EB-2	EPA 200.8	ICPM/32007	EPA 200.8	ICPM/12713
60119875023	MW-4 SHALLOW	EPA 200.8	ICPM/32007	EPA 200.8	ICPM/12713
60119875024	MW-4 DEEP	EPA 200.8	ICPM/32007	EPA 200.8	ICPM/12713
60119875025	MW-5 SHALLOW	EPA 200.8	ICPM/32007	EPA 200.8	ICPM/12713
60119875026	MW-5 DEEP	EPA 200.8	ICPM/32007	EPA 200.8	ICPM/12713
60119875027	MW-6 SHALLOW	EPA 200.8	ICPM/32007	EPA 200.8	ICPM/12713
60119875028	MW-6 DEEP	EPA 200.8	ICPM/32007	EPA 200.8	ICPM/12713
60119875001	DR-1	EPA 200.8	ICPM/32214	EPA 200.8	ICPM/12770
60119875002	DR-2	EPA 200.8	ICPM/32214	EPA 200.8	ICPM/12770
60119875003	DR-3	EPA 200.8	ICPM/32214	EPA 200.8	ICPM/12770
60119875004	DR-4	EPA 200.8	ICPM/32214	EPA 200.8	ICPM/12770
60119875005	DR-5	EPA 200.8	ICPM/32214	EPA 200.8	ICPM/12770
60119875006	DR-6	EPA 200.8	ICPM/32214	EPA 200.8	ICPM/12770
60119875007	DR-7	EPA 200.8	ICPM/32214	EPA 200.8	ICPM/12770
60119875008	DR-8	EPA 200.8	ICPM/32214	EPA 200.8	ICPM/12770
60119875009	DR-4-SW	EPA 200.8	ICPM/32214	EPA 200.8	ICPM/12770
60119875010	DR-G	EPA 200.8	ICPM/32214	EPA 200.8	ICPM/12770
60119875011	FB	EPA 200.8	ICPM/32214	EPA 200.8	ICPM/12770
60119875012	GW-1	EPA 200.8	ICPM/32214	EPA 200.8	ICPM/12770
60119875013	GW-3	EPA 200.8	ICPM/32214	EPA 200.8	ICPM/12770
60119875014	GW-4	EPA 200.8	ICPM/32214	EPA 200.8	ICPM/12770
60119875015	GW-5	EPA 200.8	ICPM/32214	EPA 200.8	ICPM/12770
60119875016	GW-7	EPA 200.8	ICPM/32214	EPA 200.8	ICPM/12770
60119875017	MW-1 SHALLOW	EPA 200.8	ICPM/32214	EPA 200.8	ICPM/12770
60119875018	MW-1 DEEP	EPA 200.8	ICPM/32214	EPA 200.8	ICPM/12770
60119875019	MW-2 DEEP	EPA 200.8	ICPM/32215	EPA 200.8	ICPM/12771
60119875020	MW-3 DEEP	EPA 200.8	ICPM/32214	EPA 200.8	ICPM/12770
60119875021	EB-1	EPA 200.8	ICPM/32215	EPA 200.8	ICPM/12771
60119875022	EB-2	EPA 200.8	ICPM/32215	EPA 200.8	ICPM/12771
60119875023	MW-4 SHALLOW	EPA 200.8	ICPM/32215	EPA 200.8	ICPM/12771
60119875024	MW-4 DEEP	EPA 200.8	ICPM/32215	EPA 200.8	ICPM/12771
60119875025	MW-5 SHALLOW	EPA 200.8	ICPM/32215	EPA 200.8	ICPM/12771
60119875026	MW-5 DEEP	EPA 200.8	ICPM/32215	EPA 200.8	ICPM/12771
60119875027	MW-6 SHALLOW	EPA 200.8	ICPM/32215	EPA 200.8	ICPM/12771
60119875028	MW-6 DEEP	EPA 200.8	ICPM/32215	EPA 200.8	ICPM/12771
60119875001	DR-1	EPA 200.8	MPRP/17875	EPA 200.8	ICPM/1364
60119875002	DR-2	EPA 200.8	MPRP/17875	EPA 200.8	ICPM/1364
60119875003	DR-3	EPA 200.8	MPRP/17875	EPA 200.8	ICPM/1364
60119875004	DR-4	EPA 200.8	MPRP/17875	EPA 200.8	ICPM/1364
60119875005	DR-5	EPA 200.8	MPRP/17875	EPA 200.8	ICPM/1364
60119875006	DR-6	EPA 200.8	MPRP/17875	EPA 200.8	ICPM/1364
60119875007	DR-7	EPA 200.8	MPRP/17875	EPA 200.8	ICPM/1364
60119875008	DR-8	EPA 200.8	MPRP/17875	EPA 200.8	ICPM/1364
60119875009	DR-4-SW	EPA 200.8	MPRP/17875	EPA 200.8	ICPM/1364

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## QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: APRIL 2012 RICO WATER SAMPLING  
Pace Project No.: 60119875

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60119875010	DR-G	EPA 200.8	MPRP/17875	EPA 200.8	ICPM/1364
60119875011	FB	EPA 200.8	MPRP/17875	EPA 200.8	ICPM/1364
60119875012	GW-1	EPA 200.8	MPRP/17875	EPA 200.8	ICPM/1364
60119875013	GW-3	EPA 200.8	MPRP/17875	EPA 200.8	ICPM/1364
60119875014	GW-4	EPA 200.8	MPRP/17875	EPA 200.8	ICPM/1364
60119875015	GW-5	EPA 200.8	MPRP/17875	EPA 200.8	ICPM/1364
60119875016	GW-7	EPA 200.8	MPRP/17875	EPA 200.8	ICPM/1364
60119875017	MW-1 SHALLOW	EPA 200.8	MPRP/17875	EPA 200.8	ICPM/1364
60119875018	MW-1 DEEP	EPA 200.8	MPRP/17875	EPA 200.8	ICPM/1364
60119875019	MW-2 DEEP	EPA 200.8	MPRP/17875	EPA 200.8	ICPM/1364
60119875020	MW-3 DEEP	EPA 200.8	MPRP/17875	EPA 200.8	ICPM/1364
60119875021	EB-1	EPA 200.8	MPRP/17876	EPA 200.8	ICPM/1365
60119875022	EB-2	EPA 200.8	MPRP/17876	EPA 200.8	ICPM/1365
60119875023	MW-4 SHALLOW	EPA 200.8	MPRP/17876	EPA 200.8	ICPM/1365
60119875024	MW-4 DEEP	EPA 200.8	MPRP/17876	EPA 200.8	ICPM/1365
60119875025	MW-5 SHALLOW	EPA 200.8	MPRP/17876	EPA 200.8	ICPM/1365
60119875026	MW-5 DEEP	EPA 200.8	MPRP/17876	EPA 200.8	ICPM/1365
60119875027	MW-6 SHALLOW	EPA 200.8	MPRP/17876	EPA 200.8	ICPM/1365
60119875028	MW-6 DEEP	EPA 200.8	MPRP/17876	EPA 200.8	ICPM/1365
60119875001	DR-1	EPA 245.1	MERC/6762	EPA 245.1	MERC/7553
60119875002	DR-2	EPA 245.1	MERC/6762	EPA 245.1	MERC/7553
60119875003	DR-3	EPA 245.1	MERC/6762	EPA 245.1	MERC/7553
60119875004	DR-4	EPA 245.1	MERC/6762	EPA 245.1	MERC/7553
60119875005	DR-5	EPA 245.1	MERC/6762	EPA 245.1	MERC/7553
60119875006	DR-6	EPA 245.1	MERC/6762	EPA 245.1	MERC/7553
60119875007	DR-7	EPA 245.1	MERC/6762	EPA 245.1	MERC/7553
60119875008	DR-8	EPA 245.1	MERC/6762	EPA 245.1	MERC/7553
60119875009	DR-4-SW	EPA 245.1	MERC/6762	EPA 245.1	MERC/7553
60119875010	DR-G	EPA 245.1	MERC/6762	EPA 245.1	MERC/7553
60119875011	FB	EPA 245.1	MERC/6762	EPA 245.1	MERC/7553
60119875012	GW-1	EPA 245.1	MERC/6762	EPA 245.1	MERC/7553
60119875013	GW-3	EPA 245.1	MERC/6762	EPA 245.1	MERC/7553
60119875014	GW-4	EPA 245.1	MERC/6762	EPA 245.1	MERC/7553
60119875015	GW-5	EPA 245.1	MERC/6762	EPA 245.1	MERC/7553
60119875016	GW-7	EPA 245.1	MERC/6762	EPA 245.1	MERC/7553
60119875017	MW-1 SHALLOW	EPA 245.1	MERC/6762	EPA 245.1	MERC/7553
60119875018	MW-1 DEEP	EPA 245.1	MERC/6762	EPA 245.1	MERC/7553
60119875019	MW-2 DEEP	EPA 245.1	MERC/6762	EPA 245.1	MERC/7553
60119875020	MW-3 DEEP	EPA 245.1	MERC/6744	EPA 245.1	MERC/7582
60119875021	EB-1	EPA 245.1	MERC/6744	EPA 245.1	MERC/7582
60119875022	EB-2	EPA 245.1	MERC/6744	EPA 245.1	MERC/7582
60119875023	MW-4 SHALLOW	EPA 245.1	MERC/6744	EPA 245.1	MERC/7582
60119875024	MW-4 DEEP	EPA 245.1	MERC/6744	EPA 245.1	MERC/7582
60119875025	MW-5 SHALLOW	EPA 245.1	MERC/6744	EPA 245.1	MERC/7582
60119875026	MW-5 DEEP	EPA 245.1	MERC/6744	EPA 245.1	MERC/7582
60119875027	MW-6 SHALLOW	EPA 245.1	MERC/6744	EPA 245.1	MERC/7582
60119875028	MW-6 DEEP	EPA 245.1	MERC/6744	EPA 245.1	MERC/7582

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: APRIL 2012 RICO WATER SAMPLING  
Pace Project No.: 60119875

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60119875001	DR-1	EPA 245.1	MERP/6209	EPA 245.1	MERC/6179
60119875001	DR-1	EPA 245.1	MERP/6279	EPA 245.1	MERC/6240
60119875002	DR-2	EPA 245.1	MERP/6209	EPA 245.1	MERC/6179
60119875002	DR-2	EPA 245.1	MERP/6279	EPA 245.1	MERC/6240
60119875003	DR-3	EPA 245.1	MERP/6209	EPA 245.1	MERC/6179
60119875003	DR-3	EPA 245.1	MERP/6279	EPA 245.1	MERC/6240
60119875004	DR-4	EPA 245.1	MERP/6209	EPA 245.1	MERC/6179
60119875004	DR-4	EPA 245.1	MERP/6279	EPA 245.1	MERC/6240
60119875005	DR-5	EPA 245.1	MERP/6209	EPA 245.1	MERC/6179
60119875005	DR-5	EPA 245.1	MERP/6279	EPA 245.1	MERC/6240
60119875006	DR-6	EPA 245.1	MERP/6209	EPA 245.1	MERC/6179
60119875006	DR-6	EPA 245.1	MERP/6279	EPA 245.1	MERC/6240
60119875007	DR-7	EPA 245.1	MERP/6209	EPA 245.1	MERC/6179
60119875007	DR-7	EPA 245.1	MERP/6279	EPA 245.1	MERC/6240
60119875008	DR-8	EPA 245.1	MERP/6209	EPA 245.1	MERC/6179
60119875008	DR-8	EPA 245.1	MERP/6279	EPA 245.1	MERC/6240
60119875009	DR-4-SW	EPA 245.1	MERP/6209	EPA 245.1	MERC/6179
60119875009	DR-4-SW	EPA 245.1	MERP/6279	EPA 245.1	MERC/6240
60119875010	DR-G	EPA 245.1	MERP/6209	EPA 245.1	MERC/6179
60119875010	DR-G	EPA 245.1	MERP/6279	EPA 245.1	MERC/6240
60119875011	FB	EPA 245.1	MERP/6209	EPA 245.1	MERC/6179
60119875011	FB	EPA 245.1	MERP/6279	EPA 245.1	MERC/6240
60119875012	GW-1	EPA 245.1	MERP/6209	EPA 245.1	MERC/6179
60119875012	GW-1	EPA 245.1	MERP/6279	EPA 245.1	MERC/6240
60119875013	GW-3	EPA 245.1	MERP/6209	EPA 245.1	MERC/6179
60119875013	GW-3	EPA 245.1	MERP/6279	EPA 245.1	MERC/6240
60119875014	GW-4	EPA 245.1	MERP/6209	EPA 245.1	MERC/6179
60119875014	GW-4	EPA 245.1	MERP/6279	EPA 245.1	MERC/6240
60119875015	GW-5	EPA 245.1	MERP/6209	EPA 245.1	MERC/6179
60119875015	GW-5	EPA 245.1	MERP/6279	EPA 245.1	MERC/6240
60119875016	GW-7	EPA 245.1	MERP/6209	EPA 245.1	MERC/6179
60119875016	GW-7	EPA 245.1	MERP/6279	EPA 245.1	MERC/6240
60119875017	MW-1 SHALLOW	EPA 245.1	MERP/6209	EPA 245.1	MERC/6179

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**QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Project: APRIL 2012 RICO WATER SAMPLING  
Pace Project No.: 60119875

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60119875017	MW-1 SHALLOW	EPA 245.1	MERP/6279	EPA 245.1	MERC/6240
60119875018	MW-1 DEEP	EPA 245.1	MERP/6209	EPA 245.1	MERC/6179
60119875018	MW-1 DEEP	EPA 245.1	MERP/6279	EPA 245.1	MERC/6240
60119875019	MW-2 DEEP	EPA 245.1	MERP/6209	EPA 245.1	MERC/6179
60119875019	MW-2 DEEP	EPA 245.1	MERP/6279	EPA 245.1	MERC/6240
60119875020	MW-3 DEEP	EPA 245.1	MERP/6209	EPA 245.1	MERC/6179
60119875020	MW-3 DEEP	EPA 245.1	MERP/6279	EPA 245.1	MERC/6240
60119875021	EB-1	EPA 245.1	MERP/6210	EPA 245.1	MERC/6180
60119875021	EB-1	EPA 245.1	MERP/6280	EPA 245.1	MERC/6241
60119875022	EB-2	EPA 245.1	MERP/6210	EPA 245.1	MERC/6180
60119875022	EB-2	EPA 245.1	MERP/6280	EPA 245.1	MERC/6241
60119875023	MW-4 SHALLOW	EPA 245.1	MERP/6210	EPA 245.1	MERC/6180
60119875023	MW-4 SHALLOW	EPA 245.1	MERP/6280	EPA 245.1	MERC/6241
60119875024	MW-4 DEEP	EPA 245.1	MERP/6210	EPA 245.1	MERC/6180
60119875024	MW-4 DEEP	EPA 245.1	MERP/6280	EPA 245.1	MERC/6241
60119875025	MW-5 SHALLOW	EPA 245.1	MERP/6210	EPA 245.1	MERC/6180
60119875025	MW-5 SHALLOW	EPA 245.1	MERP/6280	EPA 245.1	MERC/6241
60119875026	MW-5 DEEP	EPA 245.1	MERP/6210	EPA 245.1	MERC/6180
60119875026	MW-5 DEEP	EPA 245.1	MERP/6280	EPA 245.1	MERC/6241
60119875027	MW-6 SHALLOW	EPA 245.1	MERP/6210	EPA 245.1	MERC/6180
60119875027	MW-6 SHALLOW	EPA 245.1	MERP/6280	EPA 245.1	MERC/6241
60119875028	MW-6 DEEP	EPA 245.1	MERP/6210	EPA 245.1	MERC/6180
60119875028	MW-6 DEEP	EPA 245.1	MERP/6280	EPA 245.1	MERC/6241
60119875001	DR-1	SM 2510B	MT/8632		
60119875002	DR-2	SM 2510B	MT/8632		
60119875003	DR-3	SM 2510B	MT/8632		
60119875004	DR-4	SM 2510B	MT/8632		
60119875005	DR-5	SM 2510B	MT/8632		
60119875006	DR-6	SM 2510B	MT/8632		
60119875007	DR-7	SM 2510B	MT/8632		
60119875008	DR-8	SM 2510B	MT/8632		
60119875009	DR-4-SW	SM 2510B	MT/8632		
60119875010	DR-G	SM 2510B	MT/8632		
60119875011	FB	SM 2510B	MT/8632		
60119875012	GW-1	SM 2510B	MT/8632		
60119875013	GW-3	SM 2510B	MT/8632		
60119875014	GW-4	SM 2510B	MT/8632		

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**QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Project: APRIL 2012 RICO WATER SAMPLING  
Pace Project No.: 60119875

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60119875015	GW-5	SM 2510B	MT/8632		
60119875016	GW-7	SM 2510B	MT/8632		
60119875017	MW-1 SHALLOW	SM 2510B	MT/8632		
60119875018	MW-1 DEEP	SM 2510B	MT/8632		
60119875019	MW-2 DEEP	SM 2510B	MT/8632		
60119875020	MW-3 DEEP	SM 2510B	MT/8632		
60119875021	EB-1	SM 2510B	MT/8633		
60119875022	EB-2	SM 2510B	MT/8633		
60119875023	MW-4 SHALLOW	SM 2510B	MT/8633		
60119875024	MW-4 DEEP	SM 2510B	MT/8633		
60119875025	MW-5 SHALLOW	SM 2510B	MT/8633		
60119875026	MW-5 DEEP	SM 2510B	MT/8633		
60119875027	MW-6 SHALLOW	SM 2510B	MT/8633		
60119875028	MW-6 DEEP	SM 2510B	MT/8633		
60119875001	DR-1	Calculated	MT/8643		
60119875002	DR-2	Calculated	MT/8643		
60119875003	DR-3	Calculated	MT/8643		
60119875004	DR-4	Calculated	MT/8643		
60119875005	DR-5	Calculated	MT/8643		
60119875006	DR-6	Calculated	MT/8643		
60119875007	DR-7	Calculated	MT/8643		
60119875008	DR-8	Calculated	MT/8643		
60119875009	DR-4-SW	Calculated	MT/8643		
60119875010	DR-G	Calculated	MT/8643		
60119875011	FB	Calculated	MT/8643		
60119875012	GW-1	Calculated	MT/8643		
60119875013	GW-3	Calculated	MT/8643		
60119875014	GW-4	Calculated	MT/8643		
60119875015	GW-5	Calculated	MT/8643		
60119875016	GW-7	Calculated	MT/8643		
60119875017	MW-1 SHALLOW	Calculated	MT/8643		
60119875018	MW-1 DEEP	Calculated	MT/8643		
60119875019	MW-2 DEEP	Calculated	MT/8643		
60119875020	MW-3 DEEP	Calculated	MT/8643		
60119875021	EB-1	Calculated	MT/8643		
60119875022	EB-2	Calculated	MT/8643		
60119875023	MW-4 SHALLOW	Calculated	MT/8643		
60119875024	MW-4 DEEP	Calculated	MT/8643		
60119875025	MW-5 SHALLOW	Calculated	MT/8643		
60119875026	MW-5 DEEP	Calculated	MT/8643		
60119875027	MW-6 SHALLOW	Calculated	MT/8643		
60119875028	MW-6 DEEP	Calculated	MT/8643		
60119875001	DR-1	SM 2320B	WET/34787		
60119875002	DR-2	SM 2320B	WET/34787		
60119875003	DR-3	SM 2320B	WET/34787		
60119875004	DR-4	SM 2320B	WET/34787		
60119875005	DR-5	SM 2320B	WET/34807		

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**QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Project: APRIL 2012 RICO WATER SAMPLING  
Pace Project No.: 60119875

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60119875006	DR-6	SM 2320B	WET/34807		
60119875007	DR-7	SM 2320B	WET/34807		
60119875008	DR-8	SM 2320B	WET/34807		
60119875009	DR-4-SW	SM 2320B	WET/34807		
60119875010	DR-G	SM 2320B	WET/34807		
60119875011	FB	SM 2320B	WET/34807		
60119875012	GW-1	SM 2320B	WET/34807		
60119875013	GW-3	SM 2320B	WET/34807		
60119875014	GW-4	SM 2320B	WET/34807		
60119875015	GW-5	SM 2320B	WET/34807		
60119875016	GW-7	SM 2320B	WET/34807		
60119875017	MW-1 SHALLOW	SM 2320B	WET/34807		
60119875018	MW-1 DEEP	SM 2320B	WET/34807		
60119875019	MW-2 DEEP	SM 2320B	WET/34807		
60119875020	MW-3 DEEP	SM 2320B	WET/34807		
60119875021	EB-1	SM 2320B	WET/34807		
60119875022	EB-2	SM 2320B	WET/34807		
60119875023	MW-4 SHALLOW	SM 2320B	WET/34807		
60119875024	MW-4 DEEP	SM 2320B	WET/34807		
60119875025	MW-5 SHALLOW	SM 2320B	WET/34828		
60119875026	MW-5 DEEP	SM 2320B	WET/34828		
60119875027	MW-6 SHALLOW	SM 2320B	WET/34828		
60119875028	MW-6 DEEP	SM 2320B	WET/34828		
60119875001	DR-1	SM 2540C	WET/34700		
60119875002	DR-2	SM 2540C	WET/34700		
60119875003	DR-3	SM 2540C	WET/34700		
60119875004	DR-4	SM 2540C	WET/34700		
60119875005	DR-5	SM 2540C	WET/34700		
60119875006	DR-6	SM 2540C	WET/34700		
60119875007	DR-7	SM 2540C	WET/34700		
60119875008	DR-8	SM 2540C	WET/34700		
60119875009	DR-4-SW	SM 2540C	WET/34700		
60119875010	DR-G	SM 2540C	WET/34700		
60119875011	FB	SM 2540C	WET/34700		
60119875012	GW-1	SM 2540C	WET/34700		
60119875013	GW-3	SM 2540C	WET/34700		
60119875014	GW-4	SM 2540C	WET/34700		
60119875015	GW-5	SM 2540C	WET/34700		
60119875016	GW-7	SM 2540C	WET/34719		
60119875017	MW-1 SHALLOW	SM 2540C	WET/34719		
60119875018	MW-1 DEEP	SM 2540C	WET/34719		
60119875019	MW-2 DEEP	SM 2540C	WET/34719		
60119875020	MW-3 DEEP	SM 2540C	WET/34719		
60119875021	EB-1	SM 2540C	WET/34719		
60119875022	EB-2	SM 2540C	WET/34719		
60119875023	MW-4 SHALLOW	SM 2540C	WET/34719		
60119875024	MW-4 DEEP	SM 2540C	WET/34719		

Date: 06/07/2012 05:38 PM

**REPORT OF LABORATORY ANALYSIS**

Page 157 of 159

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**QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Project: APRIL 2012 RICO WATER SAMPLING  
Pace Project No.: 60119875

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60119875025	MW-5 SHALLOW	SM 2540C	WET/34719		
60119875026	MW-5 DEEP	SM 2540C	WET/34719		
60119875027	MW-6 SHALLOW	SM 2540C	WET/34719		
60119875028	MW-6 DEEP	SM 2540C	WET/34719		
60119875001	DR-1	SM 2540D	WET/34698		
60119875002	DR-2	SM 2540D	WET/34698		
60119875003	DR-3	SM 2540D	WET/34698		
60119875004	DR-4	SM 2540D	WET/34698		
60119875005	DR-5	SM 2540D	WET/34698		
60119875006	DR-6	SM 2540D	WET/34698		
60119875007	DR-7	SM 2540D	WET/34698		
60119875008	DR-8	SM 2540D	WET/34698		
60119875009	DR-4-SW	SM 2540D	WET/34698		
60119875010	DR-G	SM 2540D	WET/34698		
60119875011	FB	SM 2540D	WET/34698		
60119875012	GW-1	SM 2540D	WET/34699		
60119875013	GW-3	SM 2540D	WET/34699		
60119875014	GW-4	SM 2540D	WET/34699		
60119875015	GW-5	SM 2540D	WET/34699		
60119875016	GW-7	SM 2540D	WET/34699		
60119875017	MW-1 SHALLOW	SM 2540D	WET/34699		
60119875018	MW-1 DEEP	SM 2540D	WET/34699		
60119875019	MW-2 DEEP	SM 2540D	WET/34699		
60119875020	MW-3 DEEP	SM 2540D	WET/34699		
60119875021	EB-1	SM 2540D	WET/34699		
60119875022	EB-2	SM 2540D	WET/34699		
60119875023	MW-4 SHALLOW	SM 2540D	WET/34699		
60119875024	MW-4 DEEP	SM 2540D	WET/34718		
60119875025	MW-5 SHALLOW	SM 2540D	WET/34718		
60119875026	MW-5 DEEP	SM 2540D	WET/34718		
60119875027	MW-6 SHALLOW	SM 2540D	WET/34718		
60119875028	MW-6 DEEP	SM 2540D	WET/34718		
60119875001	DR-1	EPA 300.0	WETA/2526		
60119875002	DR-2	EPA 300.0	WETA/2526		
60119875003	DR-3	EPA 300.0	WETA/2526		
60119875004	DR-4	EPA 300.0	WETA/2526		
60119875005	DR-5	EPA 300.0	WETA/2526		
60119875006	DR-6	EPA 300.0	WETA/2526		
60119875007	DR-7	EPA 300.0	WETA/2526		
60119875008	DR-8	EPA 300.0	WETA/2526		
60119875009	DR-4-SW	EPA 300.0	WETA/2526		
60119875010	DR-G	EPA 300.0	WETA/2526		
60119875011	FB	EPA 300.0	WETA/2526		
60119875012	GW-1	EPA 300.0	WETA/2526		
60119875013	GW-3	EPA 300.0	WETA/2526		
60119875014	GW-4	EPA 300.0	WETA/2526		
60119875015	GW-5	EPA 300.0	WETA/2526		

Date: 06/07/2012 05:38 PM

**REPORT OF LABORATORY ANALYSIS**

Page 158 of 159

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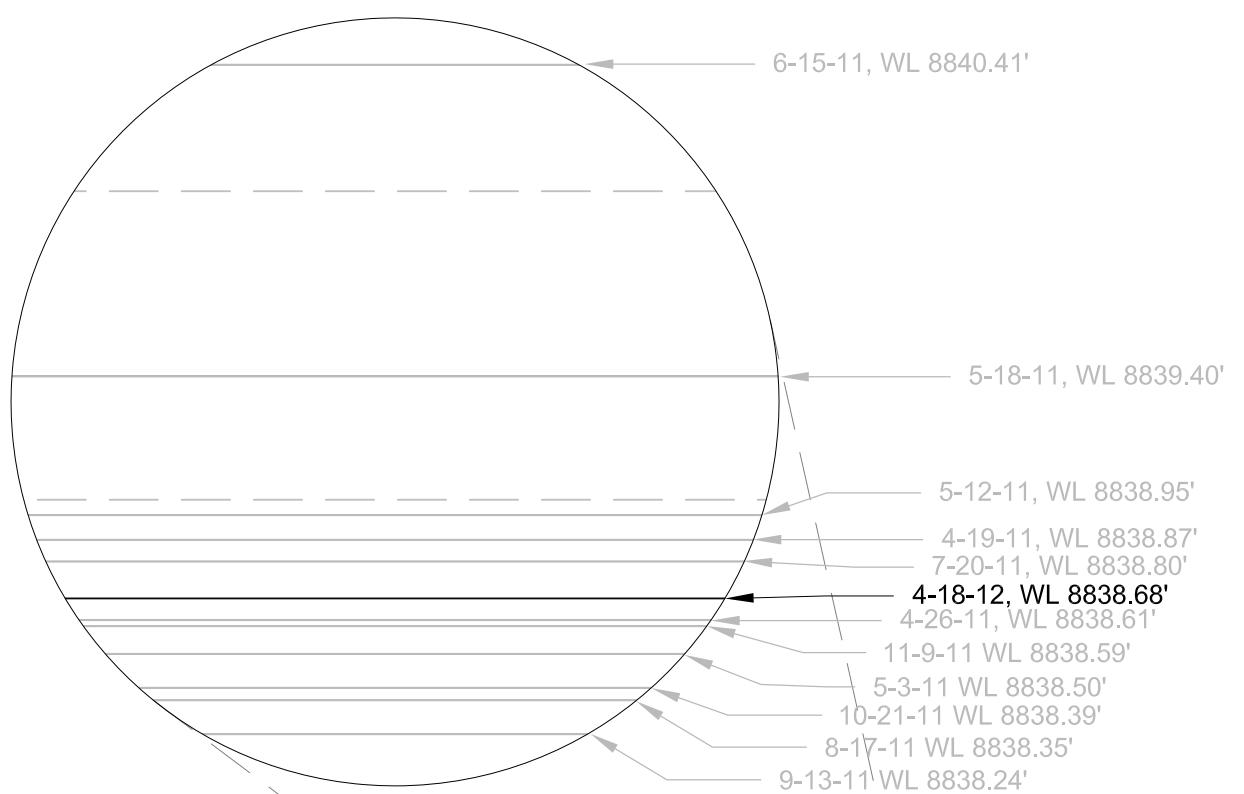
**QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Project: APRIL 2012 RICO WATER SAMPLING  
Pace Project No.: 60119875

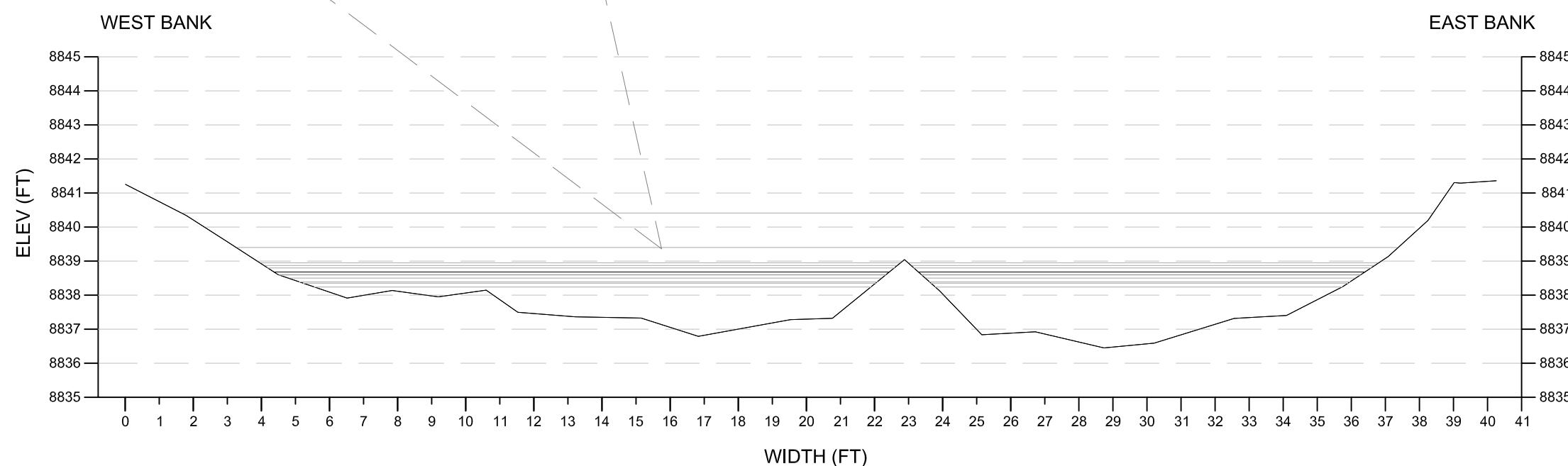
Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60119875016	GW-7	EPA 300.0	WETA/2526		
60119875017	MW-1 SHALLOW	EPA 300.0	WETA/2526		
60119875018	MW-1 DEEP	EPA 300.0	WETA/2526		
60119875019	MW-2 DEEP	EPA 300.0	WETA/2526		
60119875020	MW-3 DEEP	EPA 300.0	WETA/2522		
60119875021	EB-1	EPA 300.0	WETA/2522		
60119875022	EB-2	EPA 300.0	WETA/2522		
60119875023	MW-4 SHALLOW	EPA 300.0	WETA/2522		
60119875024	MW-4 DEEP	EPA 300.0	WETA/2522		
60119875025	MW-5 SHALLOW	EPA 300.0	WETA/2522		
60119875026	MW-5 DEEP	EPA 300.0	WETA/2522		
60119875027	MW-6 SHALLOW	EPA 300.0	WETA/2522		
60119875028	MW-6 DEEP	EPA 300.0	WETA/2522		
60119875001	DR-1	SM 4500-CN-E	WETA/19996		
60119875002	DR-2	SM 4500-CN-E	WETA/19996		
60119875003	DR-3	SM 4500-CN-E	WETA/19996		
60119875004	DR-4	SM 4500-CN-E	WETA/19996		
60119875005	DR-5	SM 4500-CN-E	WETA/19996		
60119875006	DR-6	SM 4500-CN-E	WETA/19996		
60119875007	DR-7	SM 4500-CN-E	WETA/19996		
60119875008	DR-8	SM 4500-CN-E	WETA/19996		
60119875009	DR-4-SW	SM 4500-CN-E	WETA/19996		
60119875010	DR-G	SM 4500-CN-E	WETA/19996		
60119875011	FB	SM 4500-CN-E	WETA/19996		
60119875012	GW-1	SM 4500-CN-E	WETA/19996		
60119875013	GW-3	SM 4500-CN-E	WETA/19996		
60119875014	GW-4	SM 4500-CN-E	WETA/20048		
60119875015	GW-5	SM 4500-CN-E	WETA/20048		
60119875016	GW-7	SM 4500-CN-E	WETA/20048		
60119875017	MW-1 SHALLOW	SM 4500-CN-E	WETA/20048		
60119875018	MW-1 DEEP	SM 4500-CN-E	WETA/20048		
60119875019	MW-2 DEEP	SM 4500-CN-E	WETA/20048		
60119875020	MW-3 DEEP	SM 4500-CN-E	WETA/20048		
60119875021	EB-1	SM 4500-CN-E	WETA/20048		
60119875022	EB-2	SM 4500-CN-E	WETA/20048		
60119875023	MW-4 SHALLOW	SM 4500-CN-E	WETA/20048		
60119875024	MW-4 DEEP	SM 4500-CN-E	WETA/20048		
60119875025	MW-5 SHALLOW	SM 4500-CN-E	WETA/20048		
60119875026	MW-5 DEEP	SM 4500-CN-E	WETA/20048		
60119875027	MW-6 SHALLOW	SM 4500-CN-E	WETA/20048		
60119875028	MW-6 DEEP	SM 4500-CN-E	WETA/20048		

**Appendix E**

**Flow Cross Sections**



## DR-1 CROSS SECTION



**CROSS SECTION AT DR-1**  
SCALE - 1" = 4'

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SALT LAKE CITY, UTAH, 84119 AND SHALL NOT BE COPIED, REDUCED, OR REPRODUCED WITHOUT THEIR WRITTEN PERMISSION.

General Notes		
Scale in Feet		
0	2	4
No.	Revision/Issue	Date

ATLANTIC RICHFIELD  
COMPANY



ANDERSON  
ENGINEERING COMPANY, INC.

DRAWN BY: MAD  
ENGINEER: CS, MAD  
APPROVED:

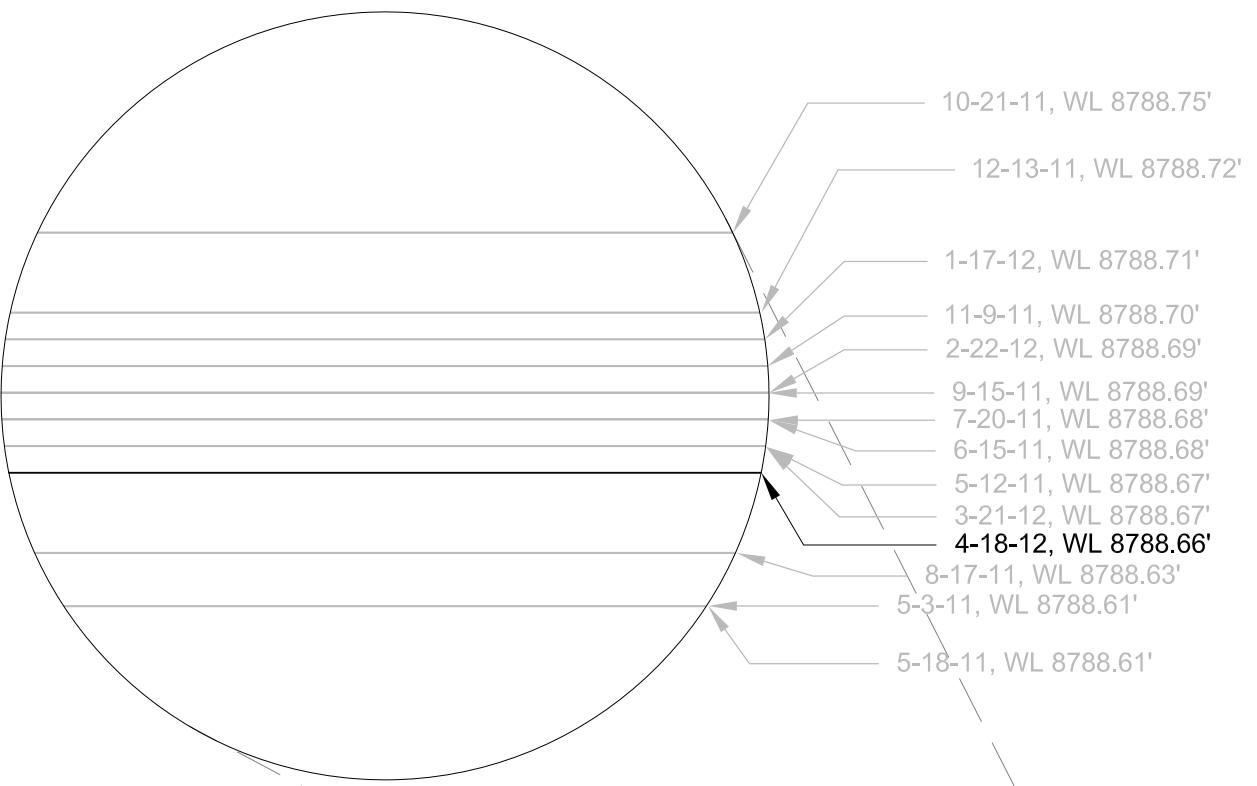
**RICO SURFACE  
WATER SAMPLING**

**DOLORES RIVER CROSS  
SECTION AT SAMPLING  
STATION DR-1**

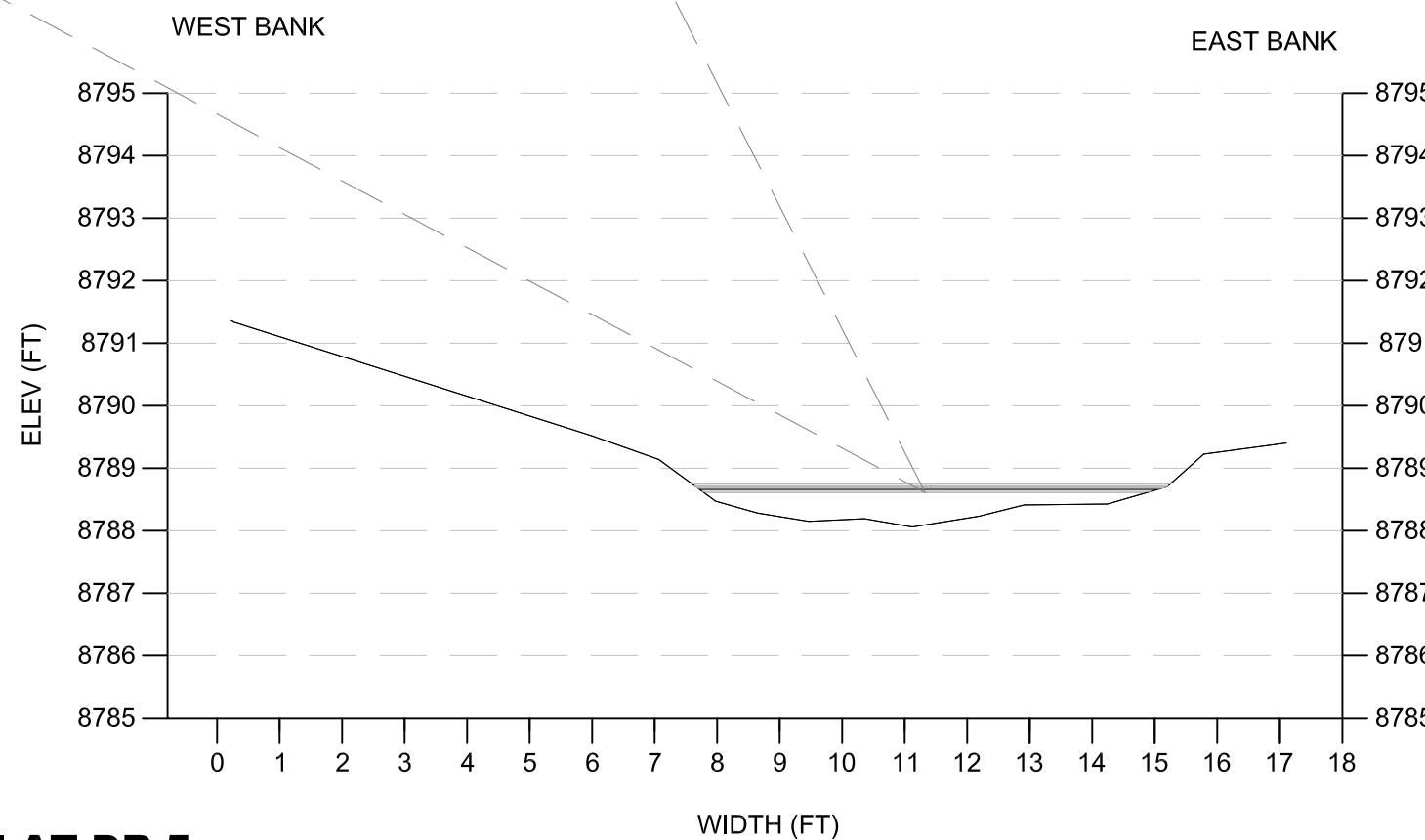
RICO, CO

Project	Figure
Date	18-APR-2012
Scale	

3



## DR-5 CROSS SECTION



**CROSS SECTION AT DR-5**

SCALE - 1" = 3'

THESE PLANS AND SPECIFICATIONS ARE THE PROPERTY OF ANDERSON ENGINEERING COMPANY, INC., 977 WEST 2100 SOUTH,  
SALT LAKE CITY, UTAH, 84119 AND SHALL NOT BE COPIED, REDUCED, OR REPRODUCED WITHOUT THEIR WRITTEN PERMISSION.

General Notes		
Scale in Feet		
0	1.5	3
No.	Revision/Issue	Date

ATLANTIC RICHFIELD  
COMPANY



ANDERSON  
ENGINEERING COMPANY, INC.

DRAWN BY: MAD  
ENGINEER: CS, MAD  
APPROVED:

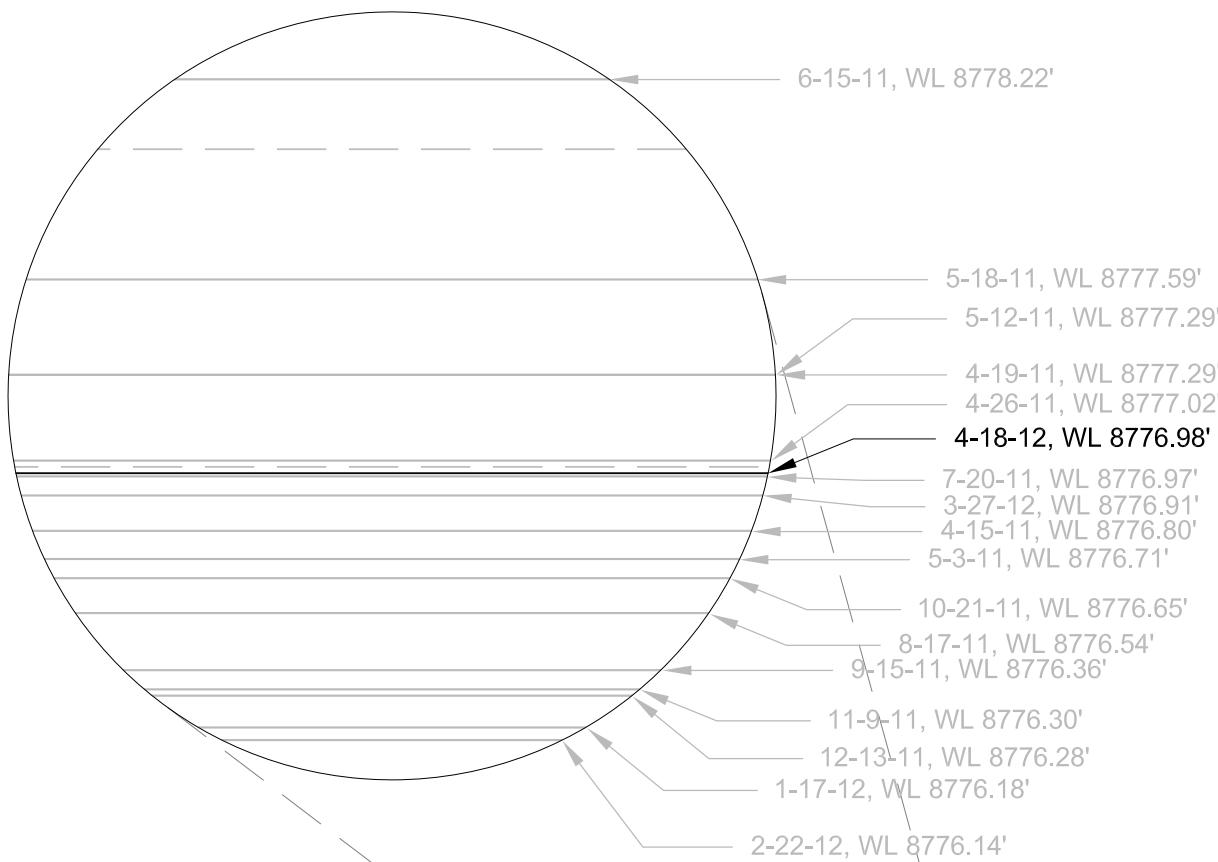
**RICO SURFACE  
WATER SAMPLING**

**POND 8 EMBANKMENT  
CROSS SECTION AT  
SAMPLING STATION DR-5**

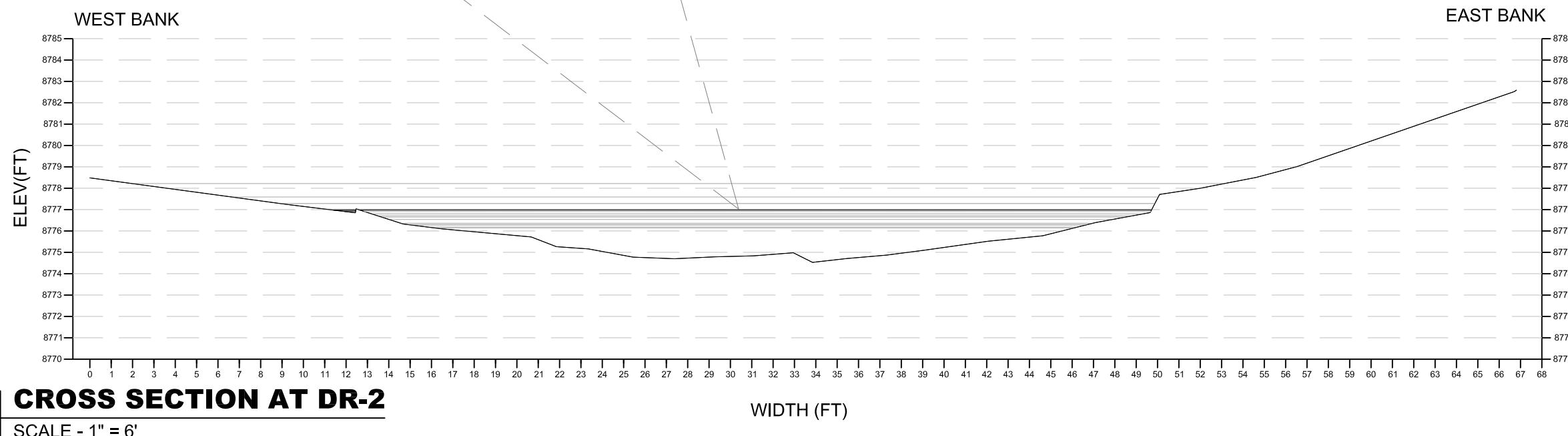
RICO, CO

Project	Figure
Date	18-APR-2012
Scale	

4



## DR-2 CROSS SECTION



**5** **CROSS SECTION AT DR-2**  
 SCALE - 1" = 6'

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 SALT LAKE CITY, UTAH, 84119 AND SHALL NOT BE COPIED, REDUCED, OR REPRODUCED WITHOUT THEIR WRITTEN PERMISSION.

General Notes		
Scale in Feet		
0	3	6
No.	Revision/Issue	Date

ATLANTIC RICHFIELD  
COMPANY



ANDERSON  
ENGINEERING COMPANY, INC.

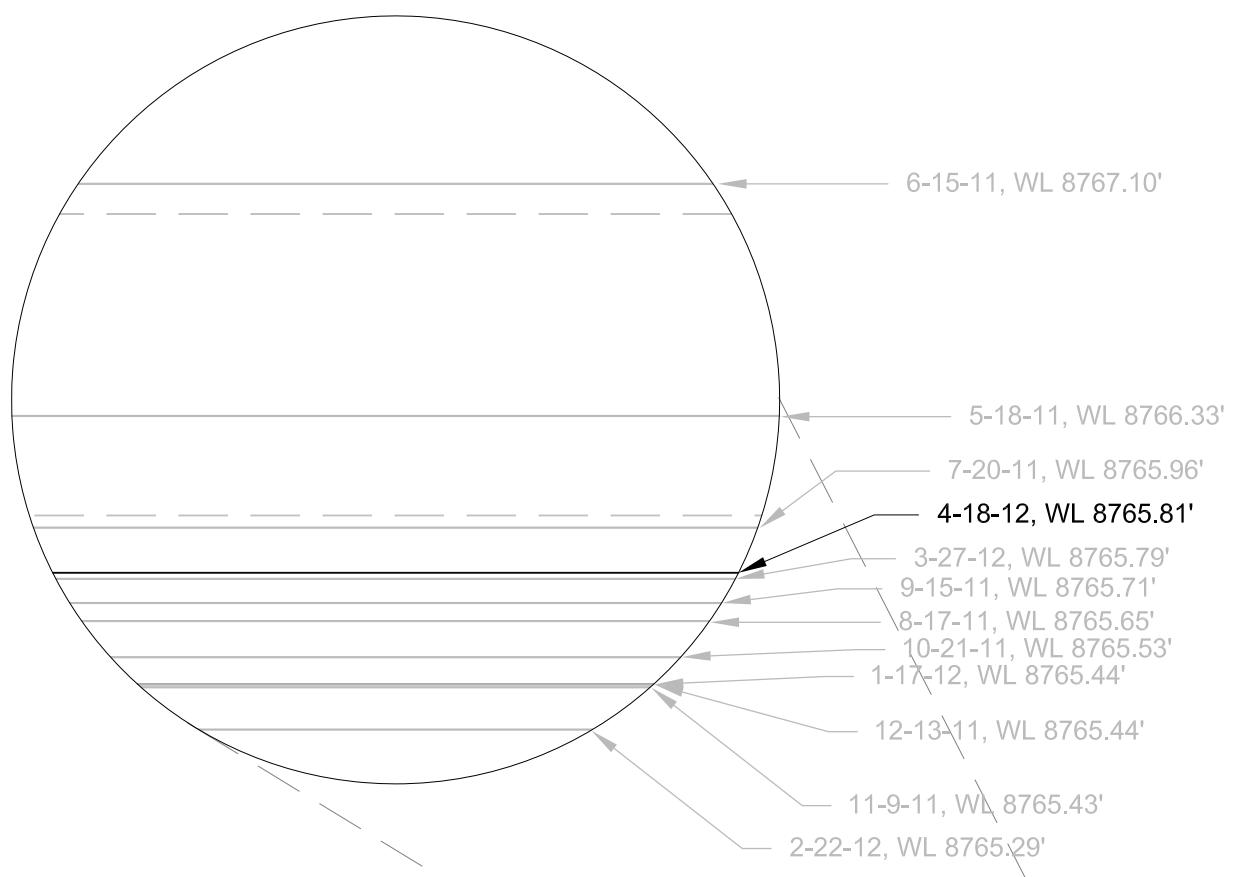
DRAWN BY: MAD  
ENGINEER: CS, MAD  
APPROVED:

**RICO SURFACE  
WATER SAMPLING**

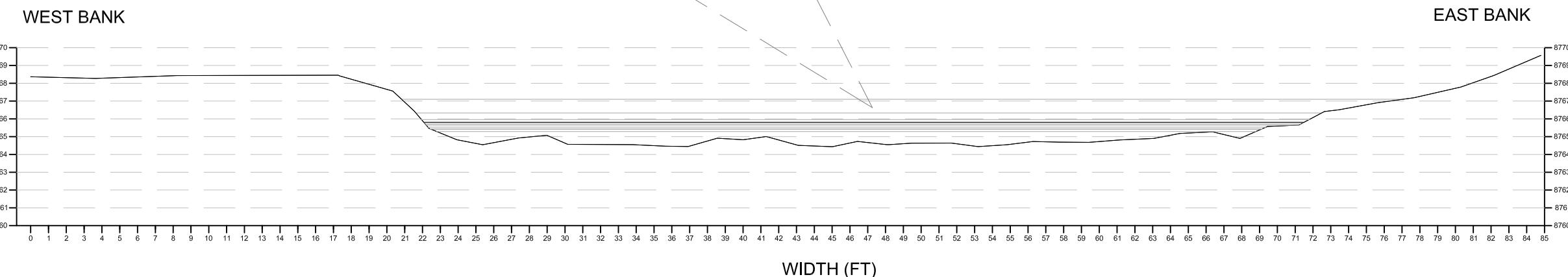
**DOLORES RIVER CROSS  
SECTION AT SAMPLING  
STATION DR-2**

RICO, CO

Project	Figure
Date 18-APR-2012	Scale
	5



## DR-7 CROSS SECTION



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General Notes		
Scale in Feet		
0 3.5 7		
No.	Revision/Issue	Date

ATLANTIC RICHFIELD  
COMPANY



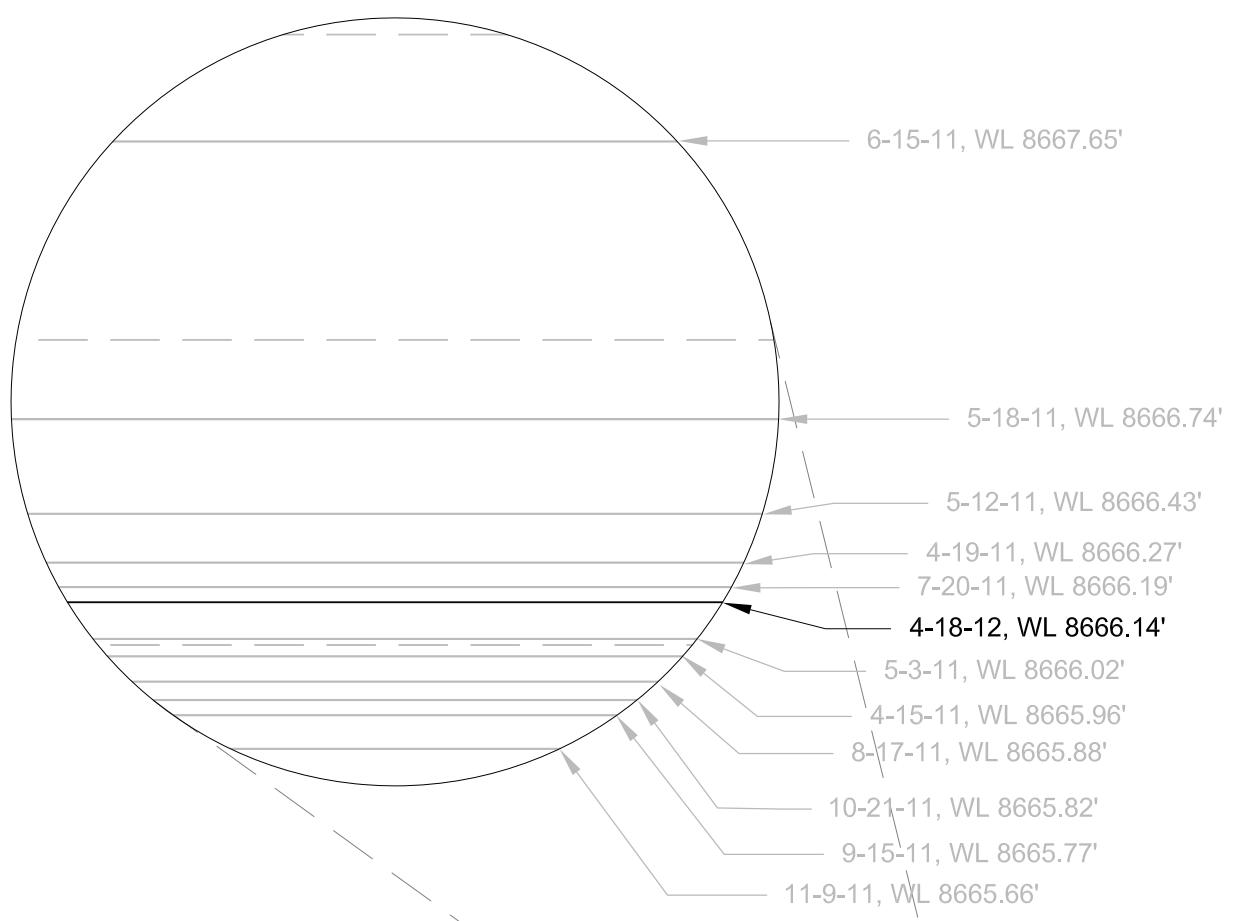
ANDERSON  
ENGINEERING COMPANY, INC.

DRAWN BY: MAD  
ENGINEER: CS, MAD  
APPROVED:

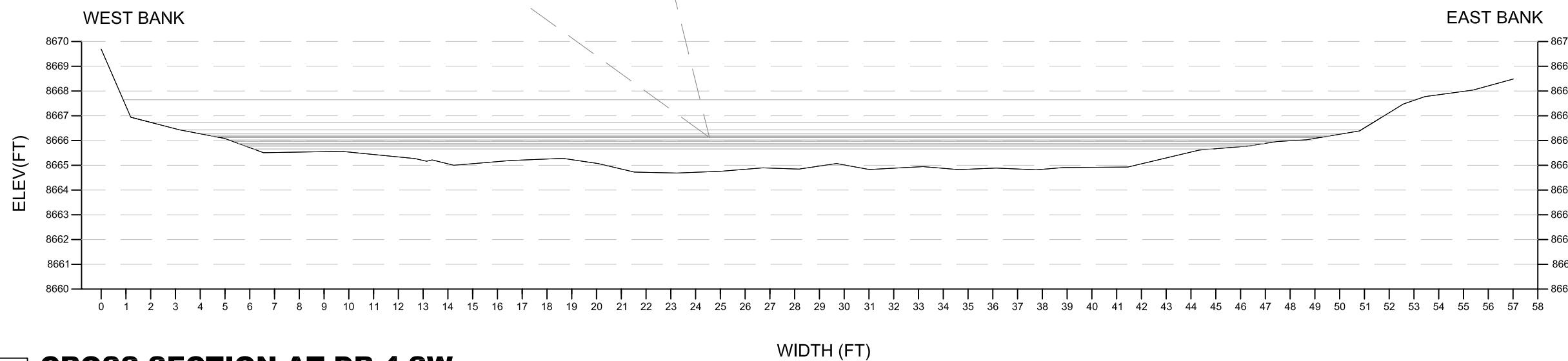
**RICO SURFACE  
WATER SAMPLING**  
**DOLORES RIVER CROSS  
SECTION AT SAMPLING  
STATION DR-7**  
RICO, CO

Project	Figure
Date	18-APR-2012
Scale	

6

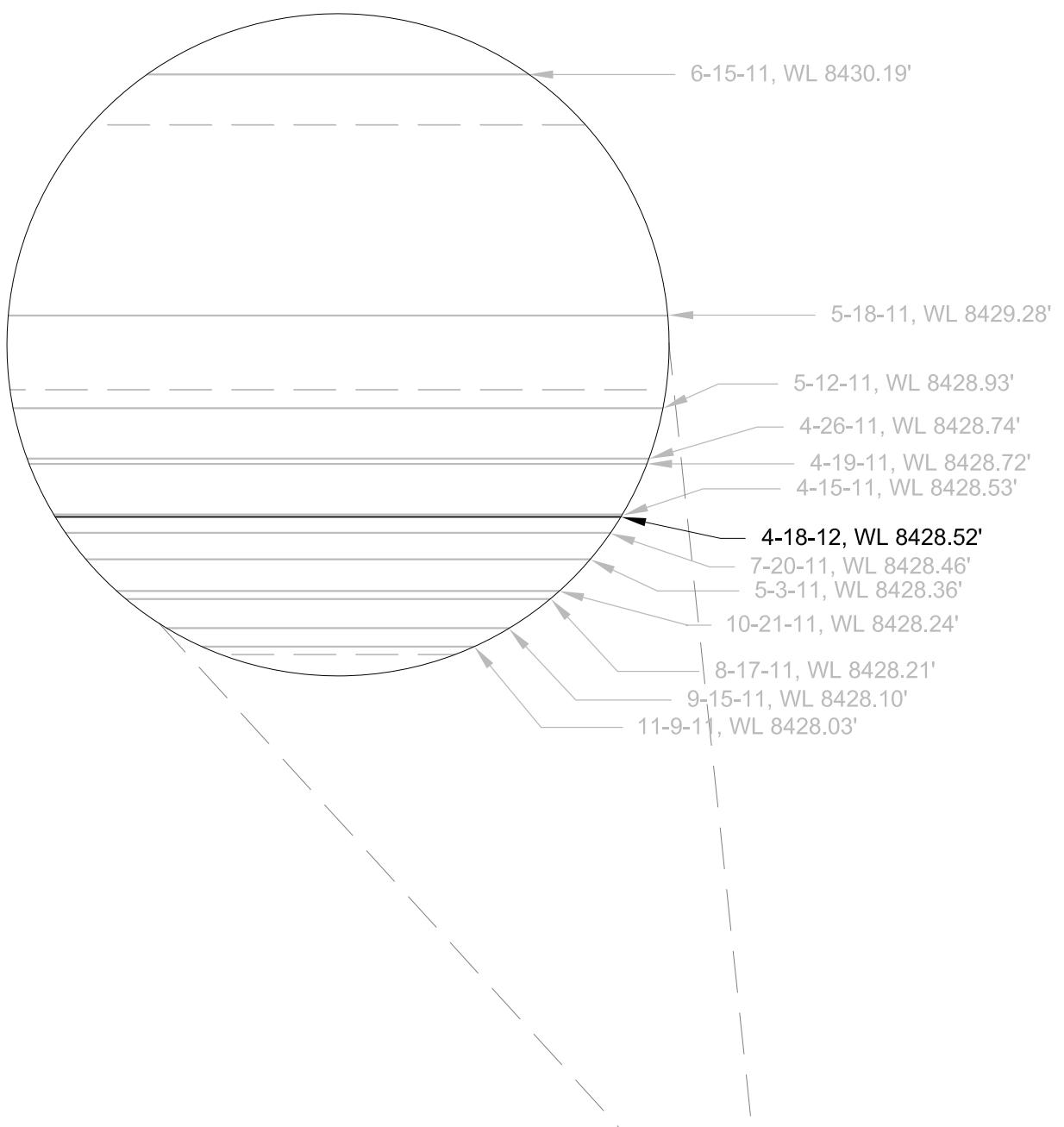


## DR-4-SW CROSS SECTION

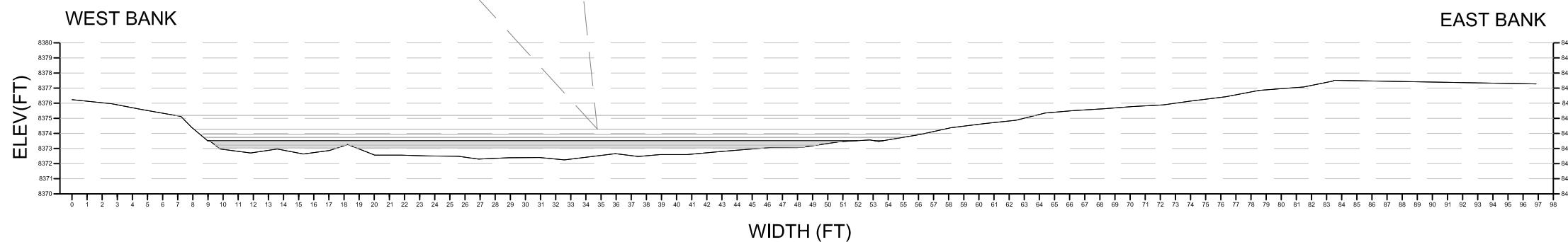


THESE PLANS AND SPECIFICATIONS ARE THE PROPERTY OF ANDERSON ENGINEERING COMPANY, INC., 977 WEST 2100 SOUTH, SALT LAKE CITY, UTAH, 84119 AND SHALL NOT BE COPIED, REDUCED, OR REPRODUCED WITHOUT THEIR WRITTEN PERMISSION.

General Notes		
Scale in Feet 0 2.5 5		
No.	Revision/Issue	Date
ATLANTIC RICHFIELD COMPANY		
 <b>ANDERSON</b> <small>ENGINEERING COMPANY, INC.</small>		
DRAWN BY: MAD ENGINEER: CS, MAD APPROVED:		
<b>RICO SURFACE WATER SAMPLING</b> <b>DOLORES RIVER CROSS SECTION AT SAMPLING STATION DR-4-SW</b> RICO, CO		
Project Date Scale	Figure 27-MAR-2012	7



## DR-G CROSS SECTION



# **CROSS SECTION AT DR-G**

SCALE - 1" = 9'

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General Notes

Scale in Feet

A horizontal scale bar with tick marks at 0, 4.5, and 9. The text "Scale in Feet" is written above the bar.

No.	Revision / Issue	Date

ATLANTIC RICHFIELD  
COMPANY



**ANDERSON**  
ENGINEERING COMPANY, INC.

DRAWN BY: MAD  
ENGINEER: CS, MAD  
APPROVED:

## RICO SURFACE WATER SAMPLING

## **DOLORES RIVER CROSS SECTION AT SAMPLING STATION DR-G**

RICO CO

Project	Figure
Date	18-APR-2012
Scale	8

**Appendix F**  
**Chain of Custody Records**



977 West 2100 South  
Salt Lake City, UT 84119  
(801) 972-6222  
FAX (801) 972-6235

Project: April 2012 Rico Water Sampling  
Contact: Mark DeFriez (801) 234-9583

## **CHAIN OF CUSTODY RECORD**

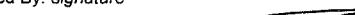
COC# \_\_\_\_\_  
Page 1 of 5

QC: (circle one)

60119875

## COMMENTS

B2W B3W B3C<sup>12</sup> B3N<sup>1-5</sup> B3F<sup>1-5</sup> C01  
C02  
C03  
C04  
C05  
C06

Relinquished By: signature	Date	Time	Received By: signature 	Date 4/21/12	Time	Special Instructions
				4/23/12	840	1.9°
Relinquished By: signature	Date	Time	Received By: signature 	Date 4/21/12	Time	
						
Relinquished By: signature	Date	Time	Received By: signature 	Date	Time	
						
Relinquished By: signature	Date	Time	Received By: signature 	Date	Time	
						



977 West 2100 South  
Salt Lake City, UT 84119  
(801) 972-6222  
FAX (801) 972-6235

Project: April 2012 Rico Water Sampling  
Contact: Mark DeFriez (801) 234-9583

## **CHAIN OF CUSTODY RECORD**

COC# \_\_\_\_\_  
Page 2 of 5

QC: (circle one)

6018875

Relinquished By: signature	Date	Time	Received By: signature 	Date	Time	Special Instructions
				4/21/12	840	0.9 °C
Relinquished By: signature	Date	Time	Received By: signature 	Date	Time	
Relinquished By: signature	Date	Time	Received By: signature 	Date	Time	
Relinquished By: signature	Date	Time	Received By: signature 	Date	Time	



# ANDERSON ENGINEERING COMPANY INC.

977 West 2100 South  
Salt Lake City, UT 84119  
(801) 972-6222  
FAX (801) 972-6235

Project: April 2012 Rico Water Sampling

Contact: Mark DeFriez (801) 234-9583

## **CHAIN OF CUSTODY RECORD**

COC# \_\_\_\_\_  
Page 3 of 5

QC: (circle one)

b0119875

## COMMENTS

Bp2U Bp3U Bp3C<sup>12</sup> Bp3W<sup>5</sup> Bp3F<sup>15</sup> C12  
G13  
G14  
G15  
G16

Relinquished By: signature	Date	Time	Received By: signature	Date	Time	Special Instructions
				4/21/12	8:40	141c
Relinquished By: signature	Date	Time	Received By: signature	Date	Time	
Relinquished By: signature	Date	Time	Received By: signature	Date	Time	
Relinquished By: signature	Date	Time	Received By: signature	Date	Time	



977 West 2100 South  
Salt Lake City, UT 84119  
(801) 972-6222  
FAX (801) 972-6235

Project: April 2012 Rico Water Sampling  
Contact: Mark DeFriez (801) 234-9583

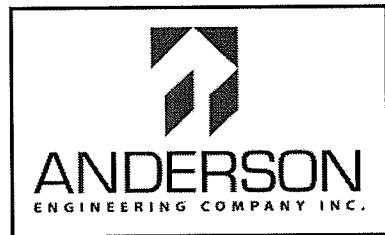
## **CHAIN OF CUSTODY RECORD**

COC# \_\_\_\_\_  
Page 4 of 5

QC: (circle one)

60119875

Relinquished By: signature	Date	Time	Received By: signature 	Date	Time	Special Instructions
				4/21/12	6:40	2.9 i
Relinquished By: signature	Date	Time	Received By: signature 	Date	Time	
Relinquished By: signature	Date	Time	Received By: signature 	Date	Time	
Relinquished By: signature	Date	Time	Received By: signature 	Date	Time	



977 West 2100 South  
Salt Lake City, UT 84119  
(801) 972-6222  
FAX (801) 972-6235

**Project: April 2012 Rico Water Sampling**

## **CHAIN OF CUSTODY RECORD**

COC# \_\_\_\_\_  
Page 5 of 5

## COMMENTS

A diagram of a guitar neck with five vertical strings. Below the strings are five downward-pointing arrows. Above the strings, the following labels are written from left to right: B72U, B73U, B73C12, BP3N15, and BP3F15. To the right of these labels are the numbers 024, 025, 026, 027, and 028, each aligned with its respective string.

Relinquished By: signature	Date	Time	Received By: signature	Date	Time	Special Instructions
				4/21/12	8:40	1.9 °C
Relinquished By: signature	Date	Time	Received By: signature	Date	Time	
						
Relinquished By: signature	Date	Time	Received By: signature	Date	Time	
						
Relinquished By: signature	Date	Time	Received By: signature	Date	Time	
						



## Sample Condition Upon Receipt – ESI Tech Specs

Client Name: BL AndersonProject #: 60119875Courier: Fed Ex  UPS  USPS  Client  Commercial  Pace  Other Tracking #: 8987 067 9879 Pace Shipping Label Used? Yes  No 

Optional
Proj Due Date: <u>5/3</u>
Proj Name:

Custody Seal on Cooler/Box Present: Yes  No  Seals intact: Yes  No Packing Material: Bubble Wrap  Bubble Bags  Foam  None  Other Thermometer Used: T-194 / T-194 Type of Ice: Wet Blue None  Samples received on ice, cooling process has begun.Cooler Temperature: 1.9 1.4 0.9 2.9

(circle one)

Date and initials of person examining contents: BR 4/23/12

Temperature should be above freezing to 6°C

Chain of Custody present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody filled out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody relinquished:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler name & signature on COC:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples arrived within holding time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Short Hold Time analyses (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.
Rush Turn Around Time requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sufficient volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct containers used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
-Pace containers used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
Containers intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
Unpreserved 5035A soils frozen w/in 48hrs?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	11.
Filtered volume received for dissolved tests?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
Sample labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
-Includes date/time/ID/analyses Matrix:	<u>WT</u>	13.
All containers needing preservation have been checked.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
All containers needing preservation are found to be in compliance with EPA recommendation.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	14.
Exceptions: VOA, coliform, TOC, O&G, WI-DRO (water), Phenolics	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Initial when completed      Lot # of added preservative
Trip Blank present:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	
Pace Trip Blank lot # (if purchased):		15.
Headspace in VOA vials (>6mm):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	16.
Project sampled in USDA Regulated Area:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	17. List State: <u>h</u>

Client Notification/ Resolution:

Copy COC to Client?

Y /  N

Field Data Required? Y / N

Person Contacted: \_\_\_\_\_

Date/Time: \_\_\_\_\_

Temp Log: Record start and finish times when unpacking cooler, if &gt;20 min, recheck sample temps.

Comments/ Resolution: \_\_\_\_\_

Start: 0900 Start:Project Manager Review: JHmDate: 4/23/12End: 0915 End:

Temp: Temp:

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the NCDENR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers).

**Sample Condition Upon Receipt – ESI Tech Specs**
**Client Name:** Bf Anderson
**Project #:** 60119875
**Courier:** Fed Ex  UPS  USPS  Client  Commercial  Pace  Other 
**Optional**
**Proj Due Date:** 5/3
**Proj Name:**
**Tracking #:** MSR 8987 0067 9879 **Pace Shipping Label Used?** Yes  No 
**Custody Seal on Cooler/Box Present:** Yes  No  **Seals intact:** Yes  No 
**Packing Material:** Bubble Wrap  Bubble Bags  Foam  None  Other 
**Thermometer Used:** T-191 / T-194
**Type of Ice:** Wet Blue None  **Samples received on ice, cooling process has begun.**
**Cooler Temperature:** 1.91, 0.9, 2.9

(bubble one)

**Date and initials of person examining contents:** 4/21/12 JH

Temperature should be above freezing to 6°C

Chain of Custody present:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	1. NO COC rec'd.
Chain of Custody filled out:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	2.
Chain of Custody relinquished:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	3.
Sampler name & signature on COC:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	4.
Samples arrived within holding time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Short Hold Time analyses (<72hr):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	6.
Rush Turn Around Time requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sufficient volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct containers used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Samples on Back.
-Pace containers used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
Containers intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
Unpreserved 5035A soils frozen w/in 48hrs?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Filtered volume received for dissolved tests?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	12.
Sample labels match COC:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
-Includes date/time/ID/analyses Matrix:	<u>WT</u>	13.
All containers needing preservation have been checked.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
All containers needing preservation are found to be in compliance with EPA recommendation.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	14.
Exceptions: VOA, coliform, TOC, O&G, WI-DRO (water), Phenolics	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Initial when completed <u>JH</u>
Trip Blank present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Lot # of added preservative
Pace Trip Blank lot # (if purchased):		15.
Headspace in VOA vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	16.
Project sampled in USDA Regulated Area:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	17. List State:

**Client Notification/ Resolution:** Copy COC to Client? Y / N Field Data Required? Y / N

Person Contacted: Mary Defriez Date/Time: 4/23/12 Temp Log: Record start and finish times when unpacking cooler, if >20 min, recheck sample temps.

Comments/ Resolution: Emailed about missing COC atm 4/23

Start: 0900 Start: \_\_\_\_\_

End: 0918 End: \_\_\_\_\_

Temp: \_\_\_\_\_ Temp: \_\_\_\_\_

Project Manager Review: \_\_\_\_\_ Date: \_\_\_\_\_

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the NC DENR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers).

## **Appendix G**

### **Field Photos**

April 2012 Field Photos



Cross Section at Station DR-1



Cross Section at Station DR-5



Cross Section at Station DR-2



Cross Section at Station DR-7

April 2012 Field Photos



**Cross Section at Station DR-4-SW**



**Cross Section at Station DR-G**

**Appendix H**  
**Field Log Book Records**

4-19-12

Depth Collected

pH T(°C) EC(µS) DO (ppm)

GW-0	11.10'	
GW-1	1.07'	4/10-08:30
GW-3	12.35'	4/18-0900
GW-4	9.48'	
GW-5	20.04'	4/18-0915
GW-6	CNO	
GW-7	20.20'	
EB-1	20.54'	4/18-0920
EB-2	15.40'	
MW-1 S	6.16'	
MW-1 D	SP 8.71'	
MW-2 S	9.99'	
MW-2 D	SP 9.84'	
MW-3 S	DRY	
MW-3 D	SP 9.82'	
MW-4 S	18.29'	
MW-4 D	16.26'	
MW-5 S	14.92'	
MW-5 D	16.19'	
MW-6 S	21.65'	
MW-6 D	21.81'	

7.80	45.3	429	4.65
7.05	46.4	920	5.24
7.09	43.8	966	5.61
6.76	29.1	2.82ms	5.21

6.47	52.1	1651	4.34
6.81	50.3	2.51ms	5.02
5.86	52.3	5.07ms	3.33
6.31	48.3	1337	3.75
6.84	55.5	1305	4.83

DRY

6.72	51.8	1501	5.09
------	------	------	------

DRY

6.91	55.0	1409	4.10
8.30	57.7	1366	3.98
7.44	58.4	1314	4.66
4.63	48.3	3.10ms	4.12
2.6466	52.5	2.28ms	4.21
6.94	63.6	1632	3.68*
5.62	58.8	1966	2.62

4-18-12 Collected

DR-1 4/18-09:00

DR-2

DR-3

DR-4

DR-5

DR-6

DR-7

4/18-11:30

DR-8 Duplicate of DR-3

DR-4-SW 4/18-12:45

DR-6 4

FB 4/18-09:30

pH	T	EC	DO
8.66	44.2	552	2.42
8.07	8.8 / 48.3	241	0.49
6.65	19.4 / 63.9	1363	5.14
7.49	13.1 / 55.2	1380	7.43
7.57	12.6 / 55.4	1359	7.05
7.09	10.0 / 50.9	1398	9.77
7.92	9.9 / 48.0	314	9.45

Duplicate of DR-3

7.62	13.0 / 50.3	304	9.98
8.28	13.2 / 54.6	291	7.14
6.81	14.1 / 81.0	0.0	6.88

4/18/12

DR-1

BML EL 569 WLEL 4365  
 Velocities: 0.3.<sup>00</sup> }  
 { 3.28      3.30      times

Water too deep / too fast to enter

DR-1A

BML EL 6425 WLEL 5585  
 Velocities 0.9, 2.1 1.9  
 2.1 3.0 3.1 3.3  
 2.3 3.0 2.1 2.3  
 2.0 1.9 1.3 1.9  
 2.7 1.8 2.0 2.0  
 3.2 3.4 2.7 2.4  
 1.3 0.5

DR-4

upper Pipe: 0.25

Depth ~~0.25 ft~~ Velocity 7.6

Lower Pipe:

Depth 0<sup>14</sup> Velocity 2.5

4/18/12

DR-5

BML EL 533 WLEL 803  
 Velocities

DR-2

BML EL 469 WLEL 1030  
 Velocities: 0.2 0.4 0.6 1.4  
 1.5 1.6 1.0 1.5 1.5  
 1.5 2.4 2.5 2.2 2.1  
 1.5 2.0 1.6 1.3 0.8  
 1.5 1.5 0.7 0.4 0.2

DR-7

BML EL 697 WLEL 1073  
 Vel. 0.4 0.6 1.4 2.1  
 1.9 2.4 1.4 1.9 2.7  
 2.7 2.8 2.4 2.7 2.2  
 1.8 2.8 2.9 2.8 1.9  
 2.6 2.7 2.3 1.3 2.4  
 2.0 1.6 2.1 2.0 2.5  
 1.3 1.3 0.9 0.4

4/18/12

## DR-2A

BMEL	<u>4135</u>	WLEL	<u>9315</u> ± <u>944</u>
Velocities	3.8	4.2	1.7
1.6	3.0	1.5	0.7
0.9	1.5	1.9	1.2
0.6	2.1	1.8	1.7
2.2	1.3	2.3	4.1
4.0	2.5	3.5	3.5
4.4	2.9	5.1	3.8
2.8	2.9	2.2	1.2
2.4	2.5	0.4	0.4

4/18/12

## DR 3A

BM EL	<u>382</u>	WL EL	<u>834</u>
Vol.	1.3	2.3	2.6
1.9	1.2	1.7	2.7
1.5	2.5	2.2	3.2
2.3	3.6	2.6	2.8
2.6	2.4	3.1	4.0
3.4	3.6	3.0	1.9
1.4	1.5	0.6	

## DR 4SW

BM EL	<u>230</u>	WL EL	<u>485</u>
Velocity:	0.4	0.4	0.6
0.8	1.9	1.3	3.1
3.0	4.2	3.7	4.2
1.9	4.2	3.5	3.2
2.7	3.3	1.9	5.1
4.2	3.6	3.0	3.0
2.7	0.7	0.4	0.2

4-18-12

DR G

BM EL 4275 WLEL 804

Velocities: 1.6 1.5 1.4

1.9 2.0 2.1 2.4 2.4

2.3 2.0 3.5 3.6 3.0

2.6 3.0 3.8 3.4

3.7 3.3 2.7 3.4 3.8

3.9 3.0 3.0 2.8 3.0

2.1 3.9 3.5 3.2 2.7

2.3 1.0 2.1 0.8 0.4

North flume

Manual depth measurement:

depth below Z ft = 1' 4 7/8"

$\approx 1.406'$

Depth = 2 - 1.406' = 0.594'

at 3:00 pm on 4-18-12

Sensor O/T PLS cleaned at

3:00 pm on 4-18-12

Sensor reset to 0.594'

Data download at 3pm

4-18-12

South flume

depth to water:

1' 11.5"

**Appendix I**

**North Flume OTT PLS Data with Flowrates**

**OTT PLS Data at North Flume, April 2012**

Date, Time	Depth Reading	(ft)	Flowrate (cfs)	Flowrate (gpm)
4/1/2012 0:00		0.59	1.38	620.4
4/1/2012 1:00		0.59	1.38	620.4
4/1/2012 2:00		0.59	1.38	620.4
4/1/2012 3:00		0.59	1.38	620.4
4/1/2012 4:00		0.59	1.38	620.4
4/1/2012 5:00		0.59	1.38	620.4
4/1/2012 6:00		0.59	1.38	620.4
4/1/2012 7:00		0.59	1.38	620.4
4/1/2012 8:00		0.59	1.38	620.4
4/1/2012 9:00		0.59	1.38	620.4
4/1/2012 10:00		0.59	1.38	620.4
4/1/2012 11:00		0.59	1.38	620.4
4/1/2012 12:00		0.59	1.38	620.4
4/1/2012 13:00		0.59	1.38	620.4
4/1/2012 14:00		0.59	1.38	620.4
4/1/2012 15:00		0.59	1.38	620.4
4/1/2012 16:00		0.59	1.38	620.4
4/1/2012 17:00		0.59	1.38	620.4
4/1/2012 18:00		0.59	1.38	620.4
4/1/2012 19:00		0.59	1.38	620.4
4/1/2012 20:00		0.59	1.38	620.4
4/1/2012 21:00		0.59	1.38	620.4
4/1/2012 22:00		0.59	1.38	620.4
4/1/2012 23:00		0.59	1.38	620.4
4/2/2012 0:00		0.59	1.38	620.4
4/2/2012 1:00		0.59	1.38	620.4
4/2/2012 2:00		0.59	1.38	620.4
4/2/2012 3:00		0.59	1.38	620.4
4/2/2012 4:00		0.59	1.38	620.4
4/2/2012 5:00		0.59	1.38	620.4
4/2/2012 6:00		0.59	1.38	620.4
4/2/2012 7:00		0.59	1.38	620.4
4/2/2012 8:00		0.59	1.38	620.4
4/2/2012 9:00		0.59	1.38	620.4
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4/8/2012 13:00	0.59	1.38	620.4
4/8/2012 14:00	0.59	1.38	620.4

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4/23/2012 23:00	0.59	1.38	620.4
4/24/2012 0:00	0.59	1.38	620.4
4/24/2012 1:00	0.59	1.38	620.4
4/24/2012 2:00	0.59	1.38	620.4
4/24/2012 3:00	0.59	1.38	620.4
4/24/2012 4:00	0.59	1.38	620.4
4/24/2012 5:00	0.59	1.38	620.4
4/24/2012 6:00	0.59	1.38	620.4

4/24/2012 7:00	0.59	1.38	620.4
4/24/2012 8:00	0.59	1.38	620.4
4/24/2012 9:00	0.59	1.38	620.4
4/24/2012 10:00	0.59	1.38	620.4
4/24/2012 11:00	0.59	1.38	620.4
4/24/2012 12:00	0.59	1.38	620.4
4/24/2012 13:00	0.59	1.38	620.4
4/24/2012 14:00	0.59	1.38	620.4
4/24/2012 15:00	0.59	1.38	620.4
4/24/2012 16:00	0.59	1.38	620.4
4/24/2012 17:00	0.59	1.38	620.4
4/24/2012 18:00	0.59	1.38	620.4
4/24/2012 19:00	0.59	1.38	620.4
4/24/2012 20:00	0.59	1.38	620.4
4/24/2012 21:00	0.59	1.38	620.4
4/24/2012 22:00	0.59	1.38	620.4
4/24/2012 23:00	0.59	1.38	620.4
4/25/2012 0:00	0.59	1.38	620.4
4/25/2012 1:00	0.59	1.38	620.4
4/25/2012 2:00	0.59	1.38	620.4
4/25/2012 3:00	0.59	1.38	620.4
4/25/2012 4:00	0.59	1.38	620.4
4/25/2012 5:00	0.59	1.38	620.4
4/25/2012 6:00	0.59	1.38	620.4
4/25/2012 7:00	0.59	1.38	620.4
4/25/2012 8:00	0.59	1.38	620.4
4/25/2012 9:00	0.59	1.38	620.4
4/25/2012 10:00	0.59	1.38	620.4
4/25/2012 11:00	0.59	1.38	620.4
4/25/2012 12:00	0.59	1.38	620.4
4/25/2012 13:00	0.59	1.38	620.4
4/25/2012 14:00	0.59	1.38	620.4
4/25/2012 15:00	0.59	1.38	620.4
4/25/2012 16:00	0.59	1.38	620.4
4/25/2012 17:00	0.59	1.38	620.4
4/25/2012 18:00	0.59	1.38	620.4
4/25/2012 19:00	0.59	1.38	620.4
4/25/2012 20:00	0.59	1.38	620.4
4/25/2012 21:00	0.59	1.38	620.4
4/25/2012 22:00	0.59	1.38	620.4
4/25/2012 23:00	0.59	1.38	620.4
4/26/2012 0:00	0.59	1.38	620.4
4/26/2012 1:00	0.59	1.38	620.4
4/26/2012 2:00	0.59	1.38	620.4
4/26/2012 3:00	0.59	1.38	620.4
4/26/2012 4:00	0.59	1.38	620.4
4/26/2012 5:00	0.59	1.38	620.4

4/26/2012 6:00	0.59	1.38	620.4
4/26/2012 7:00	0.59	1.38	620.4
4/26/2012 8:00	0.59	1.38	620.4
4/26/2012 9:00	0.59	1.38	620.4
4/26/2012 10:00	0.59	1.38	620.4
4/26/2012 11:00	0.59	1.38	620.4
4/26/2012 12:00	0.59	1.38	620.4
4/26/2012 13:00	0.59	1.38	620.4
4/26/2012 14:00	0.59	1.38	620.4
4/26/2012 15:00	0.59	1.38	620.4
4/26/2012 16:00	0.59	1.38	620.4
4/26/2012 17:00	0.59	1.38	620.4
4/26/2012 18:00	0.59	1.38	620.4
4/26/2012 19:00	0.59	1.38	620.4
4/26/2012 20:00	0.59	1.38	620.4
4/26/2012 21:00	0.59	1.38	620.4
4/26/2012 22:00	0.59	1.38	620.4
4/26/2012 23:00	0.59	1.38	620.4
4/27/2012 0:00	0.59	1.38	620.4
4/27/2012 1:00	0.59	1.38	620.4
4/27/2012 2:00	0.59	1.38	620.4
4/27/2012 3:00	0.59	1.38	620.4
4/27/2012 4:00	0.59	1.38	620.4
4/27/2012 5:00	0.59	1.38	620.4
4/27/2012 6:00	0.59	1.38	620.4
4/27/2012 7:00	0.59	1.38	620.4
4/27/2012 8:00	0.59	1.38	620.4
4/27/2012 9:00	0.59	1.38	620.4
4/27/2012 10:00	0.59	1.38	620.4
4/27/2012 11:00	0.59	1.38	620.4
4/27/2012 12:00	0.59	1.38	620.4
4/27/2012 13:00	0.59	1.38	620.4
4/27/2012 14:00	0.59	1.38	620.4
4/27/2012 15:00	0.59	1.38	620.4
4/27/2012 16:00	0.59	1.38	620.4
4/27/2012 17:00	0.59	1.38	620.4
4/27/2012 18:00	0.59	1.38	620.4
4/27/2012 19:00	0.59	1.38	620.4
4/27/2012 20:00	0.59	1.38	620.4
4/27/2012 21:00	0.59	1.38	620.4
4/27/2012 22:00	0.59	1.38	620.4
4/27/2012 23:00	0.59	1.38	620.4
4/28/2012 0:00	0.59	1.38	620.4
4/28/2012 1:00	0.59	1.38	620.4
4/28/2012 2:00	0.59	1.38	620.4
4/28/2012 3:00	0.59	1.38	620.4
4/28/2012 4:00	0.59	1.38	620.4

4/28/2012 5:00	0.59	1.38	620.4
4/28/2012 6:00	0.59	1.38	620.4
4/28/2012 7:00	0.59	1.38	620.4
4/28/2012 8:00	0.59	1.38	620.4
4/28/2012 9:00	0.59	1.38	620.4
4/28/2012 10:00	0.59	1.38	620.4
4/28/2012 11:00	0.59	1.38	620.4
4/28/2012 12:00	0.59	1.38	620.4
4/28/2012 13:00	0.59	1.38	620.4
4/28/2012 14:00	0.59	1.38	620.4
4/28/2012 15:00	0.59	1.38	620.4
4/28/2012 16:00	0.59	1.38	620.4
4/28/2012 17:00	0.59	1.38	620.4
4/28/2012 18:00	0.59	1.38	620.4
4/28/2012 19:00	0.59	1.38	620.4
4/28/2012 20:00	0.59	1.38	620.4
4/28/2012 21:00	0.59	1.38	620.4
4/28/2012 22:00	0.59	1.38	620.4
4/28/2012 23:00	0.59	1.38	620.4
4/29/2012 0:00	0.59	1.38	620.4
4/29/2012 1:00	0.59	1.38	620.4
4/29/2012 2:00	0.59	1.38	620.4
4/29/2012 3:00	0.59	1.38	620.4
4/29/2012 4:00	0.59	1.38	620.4
4/29/2012 5:00	0.59	1.38	620.4
4/29/2012 6:00	0.59	1.38	620.4
4/29/2012 7:00	0.59	1.38	620.4
4/29/2012 8:00	0.59	1.38	620.4
4/29/2012 9:00	0.59	1.38	620.4
4/29/2012 10:00	0.59	1.38	620.4
4/29/2012 11:00	0.59	1.38	620.4
4/29/2012 12:00	0.59	1.38	620.4
4/29/2012 13:00	0.59	1.38	620.4
4/29/2012 14:00	0.59	1.38	620.4
4/29/2012 15:00	0.59	1.38	620.4
4/29/2012 16:00	0.59	1.38	620.4
4/29/2012 17:00	0.59	1.38	620.4
4/29/2012 18:00	0.59	1.38	620.4
4/29/2012 19:00	0.59	1.38	620.4
4/29/2012 20:00	0.59	1.38	620.4
4/29/2012 21:00	0.59	1.38	620.4
4/29/2012 22:00	0.59	1.38	620.4
4/29/2012 23:00	0.59	1.38	620.4
4/30/2012 0:00	0.59	1.38	620.4
4/30/2012 1:00	0.59	1.38	620.4
4/30/2012 2:00	0.59	1.38	620.4
4/30/2012 3:00	0.59	1.38	620.4

4/30/2012 4:00	0.59	1.38	620.4
4/30/2012 5:00	0.59	1.38	620.4
4/30/2012 6:00	0.59	1.38	620.4
4/30/2012 7:00	0.59	1.38	620.4
4/30/2012 8:00	0.59	1.38	620.4
4/30/2012 9:00	0.59	1.38	620.4
4/30/2012 10:00	0.59	1.38	620.4
4/30/2012 11:00	0.59	1.38	620.4
4/30/2012 12:00	0.59	1.38	620.4
4/30/2012 13:00	0.59	1.38	620.4
4/30/2012 14:00	0.59	1.38	620.4
4/30/2012 15:00	0.59	1.38	620.4
4/30/2012 16:00	0.59	1.38	620.4
4/30/2012 17:00	0.59	1.38	620.4
4/30/2012 18:00	0.59	1.38	620.4
4/30/2012 19:00	0.59	1.38	620.4
4/30/2012 20:00	0.59	1.38	620.4
4/30/2012 21:00	0.59	1.38	620.4
4/30/2012 22:00	0.59	1.38	620.4
4/30/2012 23:00	0.59	1.38	620.4

**Appendix J**

**South Flume Orpheus Mini Data with Flowrates**

**OTT Opheus Mini Data at South Flume, April 2012**

Date	Time	Depth from top of flume to water (ft)	Depth of Flume Total (ft)	Depth of Flow (ft)	Flowrate (cfs)	Flowrate (gpm)
4/1/2012	12:00:00 AM	1.96	2.5	0.54	1.21	542.7
4/1/2012	1:00:00 AM	1.96	2.5	0.54	1.21	542.7
4/1/2012	2:00:00 AM	1.96	2.5	0.54	1.21	542.7
4/1/2012	3:00:00 AM	1.95	2.5	0.55	1.24	558.0
4/1/2012	4:00:00 AM	1.95	2.5	0.55	1.24	558.0
4/1/2012	5:00:00 AM	1.95	2.5	0.55	1.24	558.0
4/1/2012	6:00:00 AM	1.95	2.5	0.55	1.24	558.0
4/1/2012	7:00:00 AM	1.95	2.5	0.55	1.24	558.0
4/1/2012	8:00:00 AM	1.95	2.5	0.55	1.24	558.0
4/1/2012	9:00:00 AM	1.95	2.5	0.55	1.24	558.0
4/1/2012	10:00:00 AM	1.95	2.5	0.55	1.24	558.0
4/1/2012	11:00:00 AM	1.95	2.5	0.55	1.24	558.0
4/1/2012	12:00:00 PM	1.95	2.5	0.55	1.24	558.0
4/1/2012	1:00:00 PM	1.95	2.5	0.55	1.24	558.0
4/1/2012	2:00:00 PM	1.96	2.5	0.54	1.21	542.7
4/1/2012	3:00:00 PM	1.96	2.5	0.54	1.21	542.7
4/1/2012	4:00:00 PM	1.96	2.5	0.54	1.21	542.7
4/1/2012	5:00:00 PM	1.96	2.5	0.54	1.21	542.7
4/1/2012	6:00:00 PM	1.97	2.5	0.53	1.18	527.6
4/1/2012	7:00:00 PM	1.97	2.5	0.53	1.18	527.6
4/1/2012	8:00:00 PM	1.97	2.5	0.53	1.18	527.6
4/1/2012	9:00:00 PM	1.97	2.5	0.53	1.18	527.6
4/1/2012	10:00:00 PM	1.97	2.5	0.53	1.18	527.6
4/1/2012	11:00:00 PM	1.97	2.5	0.53	1.18	527.6
4/2/2012	12:00:00 AM	1.96	2.5	0.54	1.21	542.7
4/2/2012	1:00:00 AM	1.96	2.5	0.54	1.21	542.7
4/2/2012	2:00:00 AM	1.97	2.5	0.53	1.18	527.6
4/2/2012	3:00:00 AM	1.96	2.5	0.54	1.21	542.7
4/2/2012	4:00:00 AM	1.96	2.5	0.54	1.21	542.7
4/2/2012	5:00:00 AM	1.96	2.5	0.54	1.21	542.7
4/2/2012	6:00:00 AM	1.96	2.5	0.54	1.21	542.7
4/2/2012	7:00:00 AM	1.96	2.5	0.54	1.21	542.7
4/2/2012	8:00:00 AM	1.95	2.5	0.55	1.24	558.0
4/2/2012	9:00:00 AM	1.95	2.5	0.55	1.24	558.0
4/2/2012	10:00:00 AM	1.96	2.5	0.54	1.21	542.7
4/2/2012	11:00:00 AM	1.95	2.5	0.55	1.24	558.0
4/2/2012	12:00:00 PM	1.96	2.5	0.54	1.21	542.7
4/2/2012	1:00:00 PM	1.95	2.5	0.55	1.24	558.0
4/2/2012	2:00:00 PM	1.95	2.5	0.55	1.24	558.0
4/2/2012	3:00:00 PM	1.95	2.5	0.55	1.24	558.0
4/2/2012	4:00:00 PM	1.95	2.5	0.55	1.24	558.0
4/2/2012	5:00:00 PM	1.95	2.5	0.55	1.24	558.0
4/2/2012	6:00:00 PM	1.95	2.5	0.55	1.24	558.0

4/2/2012	7:00:00 PM	1.95	2.5	0.55	1.24	558.0
4/2/2012	8:00:00 PM	1.95	2.5	0.55	1.24	558.0
4/2/2012	9:00:00 PM	1.96	2.5	0.54	1.21	542.7
4/2/2012	10:00:00 PM	1.96	2.5	0.54	1.21	542.7
4/2/2012	11:00:00 PM	1.97	2.5	0.53	1.18	527.6
4/3/2012	12:00:00 AM	1.96	2.5	0.54	1.21	542.7
4/3/2012	1:00:00 AM	1.96	2.5	0.54	1.21	542.7
4/3/2012	2:00:00 AM	1.97	2.5	0.53	1.18	527.6
4/3/2012	3:00:00 AM	1.96	2.5	0.54	1.21	542.7
4/3/2012	4:00:00 AM	1.96	2.5	0.54	1.21	542.7
4/3/2012	5:00:00 AM	1.96	2.5	0.54	1.21	542.7
4/3/2012	6:00:00 AM	1.96	2.5	0.54	1.21	542.7
4/3/2012	7:00:00 AM	1.95	2.5	0.55	1.24	558.0
4/3/2012	8:00:00 AM	1.95	2.5	0.55	1.24	558.0
4/3/2012	9:00:00 AM	1.96	2.5	0.54	1.21	542.7
4/3/2012	10:00:00 AM	1.96	2.5	0.54	1.21	542.7
4/3/2012	11:00:00 AM	1.96	2.5	0.54	1.21	542.7
4/3/2012	12:00:00 PM	1.96	2.5	0.54	1.21	542.7
4/3/2012	1:00:00 PM	1.96	2.5	0.54	1.21	542.7
4/3/2012	2:00:00 PM	1.96	2.5	0.54	1.21	542.7
4/3/2012	3:00:00 PM	1.95	2.5	0.55	1.24	558.0
4/3/2012	4:00:00 PM	1.95	2.5	0.55	1.24	558.0
4/3/2012	5:00:00 PM	1.95	2.5	0.55	1.24	558.0
4/3/2012	6:00:00 PM	1.95	2.5	0.55	1.24	558.0
4/3/2012	7:00:00 PM	1.95	2.5	0.55	1.24	558.0
4/3/2012	8:00:00 PM	1.95	2.5	0.55	1.24	558.0
4/3/2012	9:00:00 PM	1.95	2.5	0.55	1.24	558.0
4/3/2012	10:00:00 PM	1.94	2.5	0.56	1.28	573.4
4/3/2012	11:00:00 PM	1.95	2.5	0.55	1.24	558.0
4/4/2012	12:00:00 AM	1.95	2.5	0.55	1.24	558.0
4/4/2012	1:00:00 AM	1.95	2.5	0.55	1.24	558.0
4/4/2012	2:00:00 AM	1.95	2.5	0.55	1.24	558.0
4/4/2012	3:00:00 AM	1.96	2.5	0.54	1.21	542.7
4/4/2012	4:00:00 AM	1.95	2.5	0.55	1.24	558.0
4/4/2012	5:00:00 AM	1.95	2.5	0.55	1.24	558.0
4/4/2012	6:00:00 AM	1.95	2.5	0.55	1.24	558.0
4/4/2012	7:00:00 AM	1.96	2.5	0.54	1.21	542.7
4/4/2012	8:00:00 AM	1.96	2.5	0.54	1.21	542.7
4/4/2012	9:00:00 AM	1.95	2.5	0.55	1.24	558.0
4/4/2012	10:00:00 AM	1.96	2.5	0.54	1.21	542.7
4/4/2012	11:00:00 AM	1.96	2.5	0.54	1.21	542.7
4/4/2012	12:00:00 PM	1.96	2.5	0.54	1.21	542.7
4/4/2012	1:00:00 PM	1.96	2.5	0.54	1.21	542.7
4/4/2012	2:00:00 PM	1.95	2.5	0.55	1.24	558.0
4/4/2012	3:00:00 PM	1.96	2.5	0.54	1.21	542.7
4/4/2012	4:00:00 PM	1.96	2.5	0.54	1.21	542.7
4/4/2012	5:00:00 PM	1.96	2.5	0.54	1.21	542.7

4/4/2012	6:00:00 PM	1.97	2.5	0.53	1.18	527.6
4/4/2012	7:00:00 PM	1.97	2.5	0.53	1.18	527.6
4/4/2012	8:00:00 PM	1.96	2.5	0.54	1.21	542.7
4/4/2012	9:00:00 PM	1.96	2.5	0.54	1.21	542.7
4/4/2012	10:00:00 PM	1.96	2.5	0.54	1.21	542.7
4/4/2012	11:00:00 PM	1.97	2.5	0.53	1.18	527.6
4/5/2012	12:00:00 AM	1.97	2.5	0.53	1.18	527.6
4/5/2012	1:00:00 AM	1.96	2.5	0.54	1.21	542.7
4/5/2012	2:00:00 AM	1.97	2.5	0.53	1.18	527.6
4/5/2012	3:00:00 AM	1.97	2.5	0.53	1.18	527.6
4/5/2012	4:00:00 AM	1.97	2.5	0.53	1.18	527.6
4/5/2012	5:00:00 AM	1.97	2.5	0.53	1.18	527.6
4/5/2012	6:00:00 AM	1.96	2.5	0.54	1.21	542.7
4/5/2012	7:00:00 AM	1.96	2.5	0.54	1.21	542.7
4/5/2012	8:00:00 AM	1.96	2.5	0.54	1.21	542.7
4/5/2012	9:00:00 AM	1.96	2.5	0.54	1.21	542.7
4/5/2012	10:00:00 AM	1.97	2.5	0.53	1.18	527.6
4/5/2012	11:00:00 AM	1.97	2.5	0.53	1.18	527.6
4/5/2012	12:00:00 PM	1.97	2.5	0.53	1.18	527.6
4/5/2012	1:00:00 PM	1.97	2.5	0.53	1.18	527.6
4/5/2012	2:00:00 PM	1.97	2.5	0.53	1.18	527.6
4/5/2012	3:00:00 PM	1.97	2.5	0.53	1.18	527.6
4/5/2012	4:00:00 PM	1.97	2.5	0.53	1.18	527.6
4/5/2012	5:00:00 PM	1.97	2.5	0.53	1.18	527.6
4/5/2012	6:00:00 PM	1.97	2.5	0.53	1.18	527.6
4/5/2012	7:00:00 PM	1.98	2.5	0.52	1.14	512.6
4/5/2012	8:00:00 PM	1.98	2.5	0.52	1.14	512.6
4/5/2012	9:00:00 PM	1.98	2.5	0.52	1.14	512.6
4/5/2012	10:00:00 PM	1.97	2.5	0.53	1.18	527.6
4/5/2012	11:00:00 PM	1.98	2.5	0.52	1.14	512.6
4/6/2012	12:00:00 AM	1.98	2.5	0.52	1.14	512.6
4/6/2012	1:00:00 AM	1.97	2.5	0.53	1.18	527.6
4/6/2012	2:00:00 AM	1.97	2.5	0.53	1.18	527.6
4/6/2012	3:00:00 AM	1.97	2.5	0.53	1.18	527.6
4/6/2012	4:00:00 AM	1.98	2.5	0.52	1.14	512.6
4/6/2012	5:00:00 AM	1.98	2.5	0.52	1.14	512.6
4/6/2012	6:00:00 AM	1.98	2.5	0.52	1.14	512.6
4/6/2012	7:00:00 AM	1.98	2.5	0.52	1.14	512.6
4/6/2012	8:00:00 AM	1.98	2.5	0.52	1.14	512.6
4/6/2012	9:00:00 AM	1.97	2.5	0.53	1.18	527.6
4/6/2012	10:00:00 AM	1.97	2.5	0.53	1.18	527.6
4/6/2012	11:00:00 AM	1.98	2.5	0.52	1.14	512.6
4/6/2012	12:00:00 PM	1.97	2.5	0.53	1.18	527.6
4/6/2012	1:00:00 PM	1.98	2.5	0.52	1.14	512.6
4/6/2012	2:00:00 PM	1.97	2.5	0.53	1.18	527.6
4/6/2012	3:00:00 PM	1.98	2.5	0.52	1.14	512.6
4/6/2012	4:00:00 PM	1.98	2.5	0.52	1.14	512.6

4/6/2012	5:00:00 PM	1.98	2.5	0.52	1.14	512.6
4/6/2012	6:00:00 PM	1.99	2.5	0.51	1.11	497.8
4/6/2012	7:00:00 PM	1.99	2.5	0.51	1.11	497.8
4/6/2012	8:00:00 PM	1.99	2.5	0.51	1.11	497.8
4/6/2012	9:00:00 PM	1.99	2.5	0.51	1.11	497.8
4/6/2012	10:00:00 PM	1.98	2.5	0.52	1.14	512.6
4/6/2012	11:00:00 PM	1.98	2.5	0.52	1.14	512.6
4/7/2012	12:00:00 AM	1.98	2.5	0.52	1.14	512.6
4/7/2012	1:00:00 AM	1.98	2.5	0.52	1.14	512.6
4/7/2012	2:00:00 AM	1.98	2.5	0.52	1.14	512.6
4/7/2012	3:00:00 AM	1.97	2.5	0.53	1.18	527.6
4/7/2012	4:00:00 AM	1.98	2.5	0.52	1.14	512.6
4/7/2012	5:00:00 AM	1.98	2.5	0.52	1.14	512.6
4/7/2012	6:00:00 AM	1.98	2.5	0.52	1.14	512.6
4/7/2012	7:00:00 AM	1.98	2.5	0.52	1.14	512.6
4/7/2012	8:00:00 AM	1.98	2.5	0.52	1.14	512.6
4/7/2012	9:00:00 AM	1.97	2.5	0.53	1.18	527.6
4/7/2012	10:00:00 AM	1.98	2.5	0.52	1.14	512.6
4/7/2012	11:00:00 AM	1.97	2.5	0.53	1.18	527.6
4/7/2012	12:00:00 PM	1.98	2.5	0.52	1.14	512.6
4/7/2012	1:00:00 PM	1.97	2.5	0.53	1.18	527.6
4/7/2012	2:00:00 PM	1.97	2.5	0.53	1.18	527.6
4/7/2012	3:00:00 PM	1.98	2.5	0.52	1.14	512.6
4/7/2012	4:00:00 PM	1.98	2.5	0.52	1.14	512.6
4/7/2012	5:00:00 PM	1.98	2.5	0.52	1.14	512.6
4/7/2012	6:00:00 PM	1.98	2.5	0.52	1.14	512.6
4/7/2012	7:00:00 PM	1.98	2.5	0.52	1.14	512.6
4/7/2012	8:00:00 PM	1.98	2.5	0.52	1.14	512.6
4/7/2012	9:00:00 PM	1.98	2.5	0.52	1.14	512.6
4/7/2012	10:00:00 PM	1.98	2.5	0.52	1.14	512.6
4/7/2012	11:00:00 PM	1.97	2.5	0.53	1.18	527.6
4/8/2012	12:00:00 AM	1.98	2.5	0.52	1.14	512.6
4/8/2012	1:00:00 AM	1.98	2.5	0.52	1.14	512.6
4/8/2012	2:00:00 AM	1.98	2.5	0.52	1.14	512.6
4/8/2012	3:00:00 AM	1.98	2.5	0.52	1.14	512.6
4/8/2012	4:00:00 AM	1.98	2.5	0.52	1.14	512.6
4/8/2012	5:00:00 AM	1.97	2.5	0.53	1.18	527.6
4/8/2012	6:00:00 AM	1.98	2.5	0.52	1.14	512.6
4/8/2012	7:00:00 AM	1.97	2.5	0.53	1.18	527.6
4/8/2012	8:00:00 AM	1.97	2.5	0.53	1.18	527.6
4/8/2012	9:00:00 AM	1.98	2.5	0.52	1.14	512.6
4/8/2012	10:00:00 AM	1.98	2.5	0.52	1.14	512.6
4/8/2012	11:00:00 AM	1.97	2.5	0.53	1.18	527.6
4/8/2012	12:00:00 PM	1.98	2.5	0.52	1.14	512.6
4/8/2012	1:00:00 PM	1.97	2.5	0.53	1.18	527.6
4/8/2012	2:00:00 PM	1.97	2.5	0.53	1.18	527.6
4/8/2012	3:00:00 PM	1.97	2.5	0.53	1.18	527.6

4/8/2012	4:00:00 PM	1.98	2.5	0.52	1.14	512.6
4/8/2012	5:00:00 PM	1.98	2.5	0.52	1.14	512.6
4/8/2012	6:00:00 PM	1.98	2.5	0.52	1.14	512.6
4/8/2012	7:00:00 PM	1.98	2.5	0.52	1.14	512.6
4/8/2012	8:00:00 PM	1.98	2.5	0.52	1.14	512.6
4/8/2012	9:00:00 PM	1.98	2.5	0.52	1.14	512.6
4/8/2012	10:00:00 PM	1.98	2.5	0.52	1.14	512.6
4/8/2012	11:00:00 PM	1.98	2.5	0.52	1.14	512.6
4/9/2012	12:00:00 AM	1.98	2.5	0.52	1.14	512.6
4/9/2012	1:00:00 AM	1.98	2.5	0.52	1.14	512.6
4/9/2012	2:00:00 AM	1.98	2.5	0.52	1.14	512.6
4/9/2012	3:00:00 AM	1.98	2.5	0.52	1.14	512.6
4/9/2012	4:00:00 AM	1.97	2.5	0.53	1.18	527.6
4/9/2012	5:00:00 AM	1.98	2.5	0.52	1.14	512.6
4/9/2012	6:00:00 AM	1.97	2.5	0.53	1.18	527.6
4/9/2012	7:00:00 AM	1.98	2.5	0.52	1.14	512.6
4/9/2012	8:00:00 AM	1.98	2.5	0.52	1.14	512.6
4/9/2012	9:00:00 AM	1.97	2.5	0.53	1.18	527.6
4/9/2012	10:00:00 AM	1.98	2.5	0.52	1.14	512.6
4/9/2012	11:00:00 AM	1.97	2.5	0.53	1.18	527.6
4/9/2012	12:00:00 PM	1.97	2.5	0.53	1.18	527.6
4/9/2012	1:00:00 PM	1.97	2.5	0.53	1.18	527.6
4/9/2012	2:00:00 PM	1.97	2.5	0.53	1.18	527.6
4/9/2012	3:00:00 PM	1.98	2.5	0.52	1.14	512.6
4/9/2012	4:00:00 PM	1.98	2.5	0.52	1.14	512.6
4/9/2012	5:00:00 PM	1.99	2.5	0.51	1.11	497.8
4/9/2012	6:00:00 PM	1.99	2.5	0.51	1.11	497.8
4/9/2012	7:00:00 PM	1.98	2.5	0.52	1.14	512.6
4/9/2012	8:00:00 PM	1.98	2.5	0.52	1.14	512.6
4/9/2012	9:00:00 PM	1.98	2.5	0.52	1.14	512.6
4/9/2012	10:00:00 PM	1.99	2.5	0.51	1.11	497.8
4/9/2012	11:00:00 PM	1.98	2.5	0.52	1.14	512.6
4/10/2012	12:00:00 AM	1.98	2.5	0.52	1.14	512.6
4/10/2012	1:00:00 AM	1.98	2.5	0.52	1.14	512.6
4/10/2012	2:00:00 AM	1.97	2.5	0.53	1.18	527.6
4/10/2012	3:00:00 AM	1.97	2.5	0.53	1.18	527.6
4/10/2012	4:00:00 AM	1.97	2.5	0.53	1.18	527.6
4/10/2012	5:00:00 AM	1.98	2.5	0.52	1.14	512.6
4/10/2012	6:00:00 AM	1.98	2.5	0.52	1.14	512.6
4/10/2012	7:00:00 AM	1.97	2.5	0.53	1.18	527.6
4/10/2012	8:00:00 AM	1.97	2.5	0.53	1.18	527.6
4/10/2012	9:00:00 AM	1.97	2.5	0.53	1.18	527.6
4/10/2012	10:00:00 AM	1.97	2.5	0.53	1.18	527.6
4/10/2012	11:00:00 AM	1.97	2.5	0.53	1.18	527.6
4/10/2012	12:00:00 PM	1.98	2.5	0.52	1.14	512.6
4/10/2012	1:00:00 PM	1.97	2.5	0.53	1.18	527.6
4/10/2012	2:00:00 PM	1.98	2.5	0.52	1.14	512.6

4/10/2012	3:00:00 PM	1.98	2.5	0.52	1.14	512.6
4/10/2012	4:00:00 PM	1.98	2.5	0.52	1.14	512.6
4/10/2012	5:00:00 PM	1.98	2.5	0.52	1.14	512.6
4/10/2012	6:00:00 PM	1.98	2.5	0.52	1.14	512.6
4/10/2012	7:00:00 PM	1.99	2.5	0.51	1.11	497.8
4/10/2012	8:00:00 PM	1.98	2.5	0.52	1.14	512.6
4/10/2012	9:00:00 PM	1.98	2.5	0.52	1.14	512.6
4/10/2012	10:00:00 PM	1.98	2.5	0.52	1.14	512.6
4/10/2012	11:00:00 PM	1.98	2.5	0.52	1.14	512.6
4/11/2012	12:00:00 AM	1.98	2.5	0.52	1.14	512.6
4/11/2012	1:00:00 AM	1.98	2.5	0.52	1.14	512.6
4/11/2012	2:00:00 AM	1.98	2.5	0.52	1.14	512.6
4/11/2012	3:00:00 AM	1.98	2.5	0.52	1.14	512.6
4/11/2012	4:00:00 AM	1.97	2.5	0.53	1.18	527.6
4/11/2012	5:00:00 AM	1.97	2.5	0.53	1.18	527.6
4/11/2012	6:00:00 AM	1.97	2.5	0.53	1.18	527.6
4/11/2012	7:00:00 AM	1.97	2.5	0.53	1.18	527.6
4/11/2012	8:00:00 AM	1.97	2.5	0.53	1.18	527.6
4/11/2012	9:00:00 AM	1.97	2.5	0.53	1.18	527.6
4/11/2012	10:00:00 AM	1.97	2.5	0.53	1.18	527.6
4/11/2012	11:00:00 AM	1.98	2.5	0.52	1.14	512.6
4/11/2012	12:00:00 PM	1.98	2.5	0.52	1.14	512.6
4/11/2012	1:00:00 PM	1.98	2.5	0.52	1.14	512.6
4/11/2012	2:00:00 PM	1.98	2.5	0.52	1.14	512.6
4/11/2012	3:00:00 PM	1.98	2.5	0.52	1.14	512.6
4/11/2012	4:00:00 PM	1.98	2.5	0.52	1.14	512.6
4/11/2012	5:00:00 PM	1.98	2.5	0.52	1.14	512.6
4/11/2012	6:00:00 PM	1.98	2.5	0.52	1.14	512.6
4/11/2012	7:00:00 PM	1.98	2.5	0.52	1.14	512.6
4/11/2012	8:00:00 PM	1.98	2.5	0.52	1.14	512.6
4/11/2012	9:00:00 PM	1.98	2.5	0.52	1.14	512.6
4/11/2012	10:00:00 PM	1.98	2.5	0.52	1.14	512.6
4/11/2012	11:00:00 PM	1.98	2.5	0.52	1.14	512.6
4/12/2012	12:00:00 AM	1.98	2.5	0.52	1.14	512.6
4/12/2012	1:00:00 AM	1.99	2.5	0.51	1.11	497.8
4/12/2012	2:00:00 AM	1.98	2.5	0.52	1.14	512.6
4/12/2012	3:00:00 AM	1.98	2.5	0.52	1.14	512.6
4/12/2012	4:00:00 AM	1.98	2.5	0.52	1.14	512.6
4/12/2012	5:00:00 AM	1.98	2.5	0.52	1.14	512.6
4/12/2012	6:00:00 AM	1.98	2.5	0.52	1.14	512.6
4/12/2012	7:00:00 AM	1.97	2.5	0.53	1.18	527.6
4/12/2012	8:00:00 AM	1.98	2.5	0.52	1.14	512.6
4/12/2012	9:00:00 AM	1.98	2.5	0.52	1.14	512.6
4/12/2012	10:00:00 AM	1.98	2.5	0.52	1.14	512.6
4/12/2012	11:00:00 AM	1.97	2.5	0.53	1.18	527.6
4/12/2012	12:00:00 PM	1.97	2.5	0.53	1.18	527.6
4/12/2012	1:00:00 PM	1.97	2.5	0.53	1.18	527.6

4/12/2012	2:00:00 PM	1.97	2.5	0.53	1.18	527.6
4/12/2012	3:00:00 PM	1.97	2.5	0.53	1.18	527.6
4/12/2012	4:00:00 PM	1.97	2.5	0.53	1.18	527.6
4/12/2012	5:00:00 PM	1.97	2.5	0.53	1.18	527.6
4/12/2012	6:00:00 PM	1.97	2.5	0.53	1.18	527.6
4/12/2012	7:00:00 PM	1.97	2.5	0.53	1.18	527.6
4/12/2012	8:00:00 PM	1.98	2.5	0.52	1.14	512.6
4/12/2012	9:00:00 PM	1.97	2.5	0.53	1.18	527.6
4/12/2012	10:00:00 PM	1.97	2.5	0.53	1.18	527.6
4/12/2012	11:00:00 PM	1.97	2.5	0.53	1.18	527.6
4/13/2012	12:00:00 AM	1.98	2.5	0.52	1.14	512.6
4/13/2012	1:00:00 AM	1.98	2.5	0.52	1.14	512.6
4/13/2012	2:00:00 AM	1.98	2.5	0.52	1.14	512.6
4/13/2012	3:00:00 AM	1.98	2.5	0.52	1.14	512.6
4/13/2012	4:00:00 AM	1.97	2.5	0.53	1.18	527.6
4/13/2012	5:00:00 AM	1.97	2.5	0.53	1.18	527.6
4/13/2012	6:00:00 AM	1.97	2.5	0.53	1.18	527.6
4/13/2012	7:00:00 AM	1.98	2.5	0.52	1.14	512.6
4/13/2012	8:00:00 AM	1.98	2.5	0.52	1.14	512.6
4/13/2012	9:00:00 AM	1.97	2.5	0.53	1.18	527.6
4/13/2012	10:00:00 AM	1.98	2.5	0.52	1.14	512.6
4/13/2012	11:00:00 AM	1.97	2.5	0.53	1.18	527.6
4/13/2012	12:00:00 PM	1.98	2.5	0.52	1.14	512.6
4/13/2012	1:00:00 PM	1.97	2.5	0.53	1.18	527.6
4/13/2012	2:00:00 PM	1.97	2.5	0.53	1.18	527.6
4/13/2012	3:00:00 PM	1.98	2.5	0.52	1.14	512.6
4/13/2012	4:00:00 PM	1.98	2.5	0.52	1.14	512.6
4/13/2012	5:00:00 PM	1.97	2.5	0.53	1.18	527.6
4/13/2012	6:00:00 PM	1.97	2.5	0.53	1.18	527.6
4/13/2012	7:00:00 PM	1.97	2.5	0.53	1.18	527.6
4/13/2012	8:00:00 PM	1.96	2.5	0.54	1.21	542.7
4/13/2012	9:00:00 PM	1.96	2.5	0.54	1.21	542.7
4/13/2012	10:00:00 PM	1.96	2.5	0.54	1.21	542.7
4/13/2012	11:00:00 PM	1.96	2.5	0.54	1.21	542.7
4/14/2012	12:00:00 AM	1.97	2.5	0.53	1.18	527.6
4/14/2012	1:00:00 AM	1.97	2.5	0.53	1.18	527.6
4/14/2012	2:00:00 AM	1.97	2.5	0.53	1.18	527.6
4/14/2012	3:00:00 AM	1.96	2.5	0.54	1.21	542.7
4/14/2012	4:00:00 AM	1.97	2.5	0.53	1.18	527.6
4/14/2012	5:00:00 AM	1.96	2.5	0.54	1.21	542.7
4/14/2012	6:00:00 AM	1.97	2.5	0.53	1.18	527.6
4/14/2012	7:00:00 AM	1.97	2.5	0.53	1.18	527.6
4/14/2012	8:00:00 AM	1.97	2.5	0.53	1.18	527.6
4/14/2012	9:00:00 AM	1.97	2.5	0.53	1.18	527.6
4/14/2012	10:00:00 AM	1.97	2.5	0.53	1.18	527.6
4/14/2012	11:00:00 AM	1.98	2.5	0.52	1.14	512.6
4/14/2012	12:00:00 PM	1.97	2.5	0.53	1.18	527.6

4/14/2012	1:00:00 PM	1.97	2.5	0.53	1.18	527.6
4/14/2012	2:00:00 PM	1.96	2.5	0.54	1.21	542.7
4/14/2012	3:00:00 PM	1.96	2.5	0.54	1.21	542.7
4/14/2012	4:00:00 PM	1.96	2.5	0.54	1.21	542.7
4/14/2012	5:00:00 PM	1.96	2.5	0.54	1.21	542.7
4/14/2012	6:00:00 PM	1.96	2.5	0.54	1.21	542.7
4/14/2012	7:00:00 PM	1.95	2.5	0.55	1.24	558.0
4/14/2012	8:00:00 PM	1.95	2.5	0.55	1.24	558.0
4/14/2012	9:00:00 PM	1.95	2.5	0.55	1.24	558.0
4/14/2012	10:00:00 PM	1.96	2.5	0.54	1.21	542.7
4/14/2012	11:00:00 PM	1.96	2.5	0.54	1.21	542.7
4/15/2012	12:00:00 AM	1.96	2.5	0.54	1.21	542.7
4/15/2012	1:00:00 AM	1.96	2.5	0.54	1.21	542.7
4/15/2012	2:00:00 AM	1.95	2.5	0.55	1.24	558.0
4/15/2012	3:00:00 AM	1.95	2.5	0.55	1.24	558.0
4/15/2012	4:00:00 AM	1.96	2.5	0.54	1.21	542.7
4/15/2012	5:00:00 AM	1.95	2.5	0.55	1.24	558.0
4/15/2012	6:00:00 AM	1.95	2.5	0.55	1.24	558.0
4/15/2012	7:00:00 AM	1.95	2.5	0.55	1.24	558.0
4/15/2012	8:00:00 AM	1.95	2.5	0.55	1.24	558.0
4/15/2012	9:00:00 AM	1.96	2.5	0.54	1.21	542.7
4/15/2012	10:00:00 AM	1.96	2.5	0.54	1.21	542.7
4/15/2012	11:00:00 AM	1.96	2.5	0.54	1.21	542.7
4/15/2012	12:00:00 PM	1.96	2.5	0.54	1.21	542.7
4/15/2012	1:00:00 PM	1.97	2.5	0.53	1.18	527.6
4/15/2012	2:00:00 PM	1.96	2.5	0.54	1.21	542.7
4/15/2012	3:00:00 PM	1.96	2.5	0.54	1.21	542.7
4/15/2012	4:00:00 PM	1.96	2.5	0.54	1.21	542.7
4/15/2012	5:00:00 PM	1.97	2.5	0.53	1.18	527.6
4/15/2012	6:00:00 PM	1.97	2.5	0.53	1.18	527.6
4/15/2012	7:00:00 PM	1.97	2.5	0.53	1.18	527.6
4/15/2012	8:00:00 PM	1.96	2.5	0.54	1.21	542.7
4/15/2012	9:00:00 PM	1.96	2.5	0.54	1.21	542.7
4/15/2012	10:00:00 PM	1.97	2.5	0.53	1.18	527.6
4/15/2012	11:00:00 PM	1.96	2.5	0.54	1.21	542.7
4/16/2012	12:00:00 AM	1.97	2.5	0.53	1.18	527.6
4/16/2012	1:00:00 AM	1.97	2.5	0.53	1.18	527.6
4/16/2012	2:00:00 AM	1.96	2.5	0.54	1.21	542.7
4/16/2012	3:00:00 AM	1.97	2.5	0.53	1.18	527.6
4/16/2012	4:00:00 AM	1.96	2.5	0.54	1.21	542.7
4/16/2012	5:00:00 AM	1.97	2.5	0.53	1.18	527.6
4/16/2012	6:00:00 AM	1.97	2.5	0.53	1.18	527.6
4/16/2012	7:00:00 AM	1.97	2.5	0.53	1.18	527.6
4/16/2012	8:00:00 AM	1.97	2.5	0.53	1.18	527.6
4/16/2012	9:00:00 AM	1.98	2.5	0.52	1.14	512.6
4/16/2012	10:00:00 AM	1.97	2.5	0.53	1.18	527.6
4/16/2012	11:00:00 AM	1.98	2.5	0.52	1.14	512.6

4/16/2012	12:00:00 PM	1.97	2.5	0.53	1.18	527.6
4/16/2012	1:00:00 PM	1.97	2.5	0.53	1.18	527.6
4/16/2012	2:00:00 PM	1.97	2.5	0.53	1.18	527.6
4/16/2012	3:00:00 PM	1.98	2.5	0.52	1.14	512.6
4/16/2012	4:00:00 PM	1.98	2.5	0.52	1.14	512.6
4/16/2012	5:00:00 PM	1.98	2.5	0.52	1.14	512.6
4/16/2012	6:00:00 PM	1.98	2.5	0.52	1.14	512.6
4/16/2012	7:00:00 PM	1.98	2.5	0.52	1.14	512.6
4/16/2012	8:00:00 PM	1.97	2.5	0.53	1.18	527.6
4/16/2012	9:00:00 PM	1.98	2.5	0.52	1.14	512.6
4/16/2012	10:00:00 PM	1.98	2.5	0.52	1.14	512.6
4/16/2012	11:00:00 PM	1.98	2.5	0.52	1.14	512.6
4/17/2012	12:00:00 AM	1.98	2.5	0.52	1.14	512.6
4/17/2012	1:00:00 AM	1.98	2.5	0.52	1.14	512.6
4/17/2012	2:00:00 AM	1.98	2.5	0.52	1.14	512.6
4/17/2012	3:00:00 AM	1.98	2.5	0.52	1.14	512.6
4/17/2012	4:00:00 AM	1.98	2.5	0.52	1.14	512.6
4/17/2012	5:00:00 AM	1.99	2.5	0.51	1.11	497.8
4/17/2012	6:00:00 AM	1.98	2.5	0.52	1.14	512.6
4/17/2012	7:00:00 AM	1.99	2.5	0.51	1.11	497.8
4/17/2012	8:00:00 AM	1.98	2.5	0.52	1.14	512.6
4/17/2012	9:00:00 AM	1.98	2.5	0.52	1.14	512.6
4/17/2012	10:00:00 AM	1.98	2.5	0.52	1.14	512.6
4/17/2012	11:00:00 AM	1.98	2.5	0.52	1.14	512.6
4/17/2012	12:00:00 PM	1.98	2.5	0.52	1.14	512.6
4/17/2012	1:00:00 PM	1.98	2.5	0.52	1.14	512.6
4/17/2012	2:00:00 PM	1.98	2.5	0.52	1.14	512.6
4/17/2012	3:00:00 PM	1.98	2.5	0.52	1.14	512.6
4/17/2012	4:00:00 PM	1.98	2.5	0.52	1.14	512.6
4/17/2012	5:00:00 PM	1.98	2.5	0.52	1.14	512.6
4/17/2012	6:00:00 PM	1.98	2.5	0.52	1.14	512.6
4/17/2012	7:00:00 PM	1.98	2.5	0.52	1.14	512.6
4/17/2012	8:00:00 PM	1.99	2.5	0.51	1.11	497.8
4/17/2012	9:00:00 PM	1.99	2.5	0.51	1.11	497.8
4/17/2012	10:00:00 PM	1.99	2.5	0.51	1.11	497.8
4/17/2012	11:00:00 PM	1.99	2.5	0.51	1.11	497.8
4/18/2012	12:00:00 AM	1.99	2.5	0.51	1.11	497.8
4/18/2012	1:00:00 AM	1.99	2.5	0.51	1.11	497.8
4/18/2012	2:00:00 AM	1.99	2.5	0.51	1.11	497.8
4/18/2012	3:00:00 AM	1.99	2.5	0.51	1.11	497.8
4/18/2012	4:00:00 AM	1.99	2.5	0.51	1.11	497.8
4/18/2012	5:00:00 AM	1.99	2.5	0.51	1.11	497.8
4/18/2012	6:00:00 AM	1.99	2.5	0.51	1.11	497.8
4/18/2012	7:00:00 AM	1.99	2.5	0.51	1.11	497.8
4/18/2012	8:00:00 AM	1.99	2.5	0.51	1.11	497.8
4/18/2012	9:00:00 AM	1.98	2.5	0.52	1.14	512.6
4/18/2012	10:00:00 AM	1.99	2.5	0.51	1.11	497.8

4/18/2012	11:00:00 AM	1.98	2.5	0.52	1.14	512.6
4/18/2012	12:00:00 PM	1.98	2.5	0.52	1.14	512.6
4/18/2012	1:00:00 PM	1.99	2.5	0.51	1.11	497.8
4/18/2012	2:00:00 PM	1.99	2.5	0.51	1.11	497.8
4/18/2012	3:00:00 PM	1.99	2.5	0.51	1.11	497.8
4/18/2012	4:00:00 PM	1.97	2.5	0.53	1.18	527.6
4/18/2012	5:00:00 PM	1.97	2.5	0.53	1.18	527.6
4/18/2012	6:00:00 PM	1.97	2.5	0.53	1.18	527.6
4/18/2012	7:00:00 PM	1.98	2.5	0.52	1.14	512.6
4/18/2012	8:00:00 PM	1.97	2.5	0.53	1.18	527.6
4/18/2012	9:00:00 PM	1.97	2.5	0.53	1.18	527.6
4/18/2012	10:00:00 PM	1.97	2.5	0.53	1.18	527.6
4/18/2012	11:00:00 PM	1.97	2.5	0.53	1.18	527.6
4/19/2012	12:00:00 AM	1.97	2.5	0.53	1.18	527.6
4/19/2012	1:00:00 AM	1.97	2.5	0.53	1.18	527.6
4/19/2012	2:00:00 AM	1.97	2.5	0.53	1.18	527.6
4/19/2012	3:00:00 AM	1.97	2.5	0.53	1.18	527.6
4/19/2012	4:00:00 AM	1.97	2.5	0.53	1.18	527.6
4/19/2012	5:00:00 AM	1.97	2.5	0.53	1.18	527.6
4/19/2012	6:00:00 AM	1.97	2.5	0.53	1.18	527.6
4/19/2012	7:00:00 AM	1.97	2.5	0.53	1.18	527.6
4/19/2012	8:00:00 AM	1.97	2.5	0.53	1.18	527.6
4/19/2012	9:00:00 AM	1.97	2.5	0.53	1.18	527.6
4/19/2012	10:00:00 AM	1.96	2.5	0.54	1.21	542.7
4/19/2012	11:00:00 AM	1.96	2.5	0.54	1.21	542.7
4/19/2012	12:00:00 PM	1.96	2.5	0.54	1.21	542.7
4/19/2012	1:00:00 PM	1.97	2.5	0.53	1.18	527.6
4/19/2012	2:00:00 PM	1.97	2.5	0.53	1.18	527.6
4/19/2012	3:00:00 PM	1.98	2.5	0.52	1.14	512.6
4/19/2012	4:00:00 PM	1.97	2.5	0.53	1.18	527.6
4/19/2012	5:00:00 PM	1.98	2.5	0.52	1.14	512.6
4/19/2012	6:00:00 PM	1.97	2.5	0.53	1.18	527.6
4/19/2012	7:00:00 PM	1.97	2.5	0.53	1.18	527.6
4/19/2012	8:00:00 PM	1.97	2.5	0.53	1.18	527.6
4/19/2012	9:00:00 PM	1.97	2.5	0.53	1.18	527.6
4/19/2012	10:00:00 PM	1.97	2.5	0.53	1.18	527.6
4/19/2012	11:00:00 PM	1.97	2.5	0.53	1.18	527.6
4/20/2012	12:00:00 AM	1.98	2.5	0.52	1.14	512.6
4/20/2012	1:00:00 AM	1.97	2.5	0.53	1.18	527.6
4/20/2012	2:00:00 AM	1.97	2.5	0.53	1.18	527.6
4/20/2012	3:00:00 AM	1.98	2.5	0.52	1.14	512.6
4/20/2012	4:00:00 AM	1.98	2.5	0.52	1.14	512.6
4/20/2012	5:00:00 AM	1.98	2.5	0.52	1.14	512.6
4/20/2012	6:00:00 AM	1.98	2.5	0.52	1.14	512.6
4/20/2012	7:00:00 AM	1.98	2.5	0.52	1.14	512.6
4/20/2012	8:00:00 AM	1.98	2.5	0.52	1.14	512.6
4/20/2012	9:00:00 AM	1.98	2.5	0.52	1.14	512.6

4/20/2012	10:00:00 AM	1.98	2.5	0.52	1.14	512.6
4/20/2012	11:00:00 AM	1.98	2.5	0.52	1.14	512.6
4/20/2012	12:00:00 PM	1.98	2.5	0.52	1.14	512.6
4/20/2012	1:00:00 PM	1.98	2.5	0.52	1.14	512.6
4/20/2012	2:00:00 PM	1.98	2.5	0.52	1.14	512.6
4/20/2012	3:00:00 PM	1.98	2.5	0.52	1.14	512.6
4/20/2012	4:00:00 PM	1.98	2.5	0.52	1.14	512.6
4/20/2012	5:00:00 PM	1.98	2.5	0.52	1.14	512.6
4/20/2012	6:00:00 PM	1.98	2.5	0.52	1.14	512.6
4/20/2012	7:00:00 PM	1.99	2.5	0.51	1.11	497.8
4/20/2012	8:00:00 PM	1.98	2.5	0.52	1.14	512.6
4/20/2012	9:00:00 PM	1.99	2.5	0.51	1.11	497.8
4/20/2012	10:00:00 PM	1.98	2.5	0.52	1.14	512.6
4/20/2012	11:00:00 PM	1.99	2.5	0.51	1.11	497.8
4/21/2012	12:00:00 AM	1.98	2.5	0.52	1.14	512.6
4/21/2012	1:00:00 AM	1.98	2.5	0.52	1.14	512.6
4/21/2012	2:00:00 AM	1.99	2.5	0.51	1.11	497.8
4/21/2012	3:00:00 AM	1.99	2.5	0.51	1.11	497.8
4/21/2012	4:00:00 AM	1.99	2.5	0.51	1.11	497.8
4/21/2012	5:00:00 AM	1.98	2.5	0.52	1.14	512.6
4/21/2012	6:00:00 AM	1.98	2.5	0.52	1.14	512.6
4/21/2012	7:00:00 AM	1.98	2.5	0.52	1.14	512.6
4/21/2012	8:00:00 AM	1.98	2.5	0.52	1.14	512.6
4/21/2012	9:00:00 AM	1.98	2.5	0.52	1.14	512.6
4/21/2012	10:00:00 AM	1.98	2.5	0.52	1.14	512.6
4/21/2012	11:00:00 AM	1.98	2.5	0.52	1.14	512.6
4/21/2012	12:00:00 PM	1.98	2.5	0.52	1.14	512.6
4/21/2012	1:00:00 PM	1.98	2.5	0.52	1.14	512.6
4/21/2012	2:00:00 PM	1.98	2.5	0.52	1.14	512.6
4/21/2012	3:00:00 PM	1.99	2.5	0.51	1.11	497.8
4/21/2012	4:00:00 PM	1.99	2.5	0.51	1.11	497.8
4/21/2012	5:00:00 PM	1.98	2.5	0.52	1.14	512.6
4/21/2012	6:00:00 PM	1.99	2.5	0.51	1.11	497.8
4/21/2012	7:00:00 PM	1.99	2.5	0.51	1.11	497.8
4/21/2012	8:00:00 PM	1.99	2.5	0.51	1.11	497.8
4/21/2012	9:00:00 PM	1.98	2.5	0.52	1.14	512.6
4/21/2012	10:00:00 PM	1.98	2.5	0.52	1.14	512.6
4/21/2012	11:00:00 PM	1.98	2.5	0.52	1.14	512.6
4/22/2012	12:00:00 AM	1.99	2.5	0.51	1.11	497.8
4/22/2012	1:00:00 AM	1.99	2.5	0.51	1.11	497.8
4/22/2012	2:00:00 AM	1.99	2.5	0.51	1.11	497.8
4/22/2012	3:00:00 AM	1.98	2.5	0.52	1.14	512.6
4/22/2012	4:00:00 AM	1.99	2.5	0.51	1.11	497.8
4/22/2012	5:00:00 AM	1.99	2.5	0.51	1.11	497.8
4/22/2012	6:00:00 AM	1.98	2.5	0.52	1.14	512.6
4/22/2012	7:00:00 AM	1.98	2.5	0.52	1.14	512.6
4/22/2012	8:00:00 AM	1.98	2.5	0.52	1.14	512.6

4/22/2012	9:00:00 AM	1.98	2.5	0.52	1.14	512.6
4/22/2012	10:00:00 AM	1.99	2.5	0.51	1.11	497.8
4/22/2012	11:00:00 AM	1.99	2.5	0.51	1.11	497.8
4/22/2012	12:00:00 PM	1.98	2.5	0.52	1.14	512.6
4/22/2012	1:00:00 PM	1.99	2.5	0.51	1.11	497.8
4/22/2012	2:00:00 PM	1.98	2.5	0.52	1.14	512.6
4/22/2012	3:00:00 PM	1.98	2.5	0.52	1.14	512.6
4/22/2012	4:00:00 PM	1.98	2.5	0.52	1.14	512.6
4/22/2012	5:00:00 PM	1.98	2.5	0.52	1.14	512.6
4/22/2012	6:00:00 PM	1.99	2.5	0.51	1.11	497.8
4/22/2012	7:00:00 PM	1.98	2.5	0.52	1.14	512.6
4/22/2012	8:00:00 PM	1.98	2.5	0.52	1.14	512.6
4/22/2012	9:00:00 PM	1.98	2.5	0.52	1.14	512.6
4/22/2012	10:00:00 PM	1.98	2.5	0.52	1.14	512.6
4/22/2012	11:00:00 PM	1.99	2.5	0.51	1.11	497.8
4/23/2012	12:00:00 AM	1.99	2.5	0.51	1.11	497.8
4/23/2012	1:00:00 AM	1.98	2.5	0.52	1.14	512.6
4/23/2012	2:00:00 AM	1.98	2.5	0.52	1.14	512.6
4/23/2012	3:00:00 AM	1.99	2.5	0.51	1.11	497.8
4/23/2012	4:00:00 AM	1.98	2.5	0.52	1.14	512.6
4/23/2012	5:00:00 AM	1.99	2.5	0.51	1.11	497.8
4/23/2012	6:00:00 AM	1.98	2.5	0.52	1.14	512.6
4/23/2012	7:00:00 AM	1.98	2.5	0.52	1.14	512.6
4/23/2012	8:00:00 AM	1.98	2.5	0.52	1.14	512.6
4/23/2012	9:00:00 AM	1.98	2.5	0.52	1.14	512.6
4/23/2012	10:00:00 AM	1.98	2.5	0.52	1.14	512.6
4/23/2012	11:00:00 AM	1.98	2.5	0.52	1.14	512.6
4/23/2012	12:00:00 PM	1.98	2.5	0.52	1.14	512.6
4/23/2012	1:00:00 PM	1.98	2.5	0.52	1.14	512.6
4/23/2012	2:00:00 PM	1.98	2.5	0.52	1.14	512.6
4/23/2012	3:00:00 PM	1.98	2.5	0.52	1.14	512.6
4/23/2012	4:00:00 PM	1.99	2.5	0.51	1.11	497.8
4/23/2012	5:00:00 PM	1.98	2.5	0.52	1.14	512.6
4/23/2012	6:00:00 PM	1.98	2.5	0.52	1.14	512.6
4/23/2012	7:00:00 PM	1.98	2.5	0.52	1.14	512.6
4/23/2012	8:00:00 PM	1.98	2.5	0.52	1.14	512.6
4/23/2012	9:00:00 PM	1.98	2.5	0.52	1.14	512.6
4/23/2012	10:00:00 PM	1.98	2.5	0.52	1.14	512.6
4/23/2012	11:00:00 PM	1.98	2.5	0.52	1.14	512.6
4/24/2012	12:00:00 AM	1.98	2.5	0.52	1.14	512.6
4/24/2012	1:00:00 AM	1.98	2.5	0.52	1.14	512.6
4/24/2012	2:00:00 AM	1.98	2.5	0.52	1.14	512.6
4/24/2012	3:00:00 AM	1.98	2.5	0.52	1.14	512.6
4/24/2012	4:00:00 AM	1.98	2.5	0.52	1.14	512.6
4/24/2012	5:00:00 AM	1.98	2.5	0.52	1.14	512.6
4/24/2012	6:00:00 AM	1.98	2.5	0.52	1.14	512.6
4/24/2012	7:00:00 AM	1.98	2.5	0.52	1.14	512.6

4/24/2012	8:00:00 AM	1.98	2.5	0.52	1.14	512.6
4/24/2012	9:00:00 AM	1.98	2.5	0.52	1.14	512.6
4/24/2012	10:00:00 AM	1.98	2.5	0.52	1.14	512.6
4/24/2012	11:00:00 AM	1.98	2.5	0.52	1.14	512.6
4/24/2012	12:00:00 PM	1.98	2.5	0.52	1.14	512.6
4/24/2012	1:00:00 PM	1.98	2.5	0.52	1.14	512.6
4/24/2012	2:00:00 PM	1.98	2.5	0.52	1.14	512.6
4/24/2012	3:00:00 PM	1.98	2.5	0.52	1.14	512.6
4/24/2012	4:00:00 PM	1.99	2.5	0.51	1.11	497.8
4/24/2012	5:00:00 PM	1.98	2.5	0.52	1.14	512.6
4/24/2012	6:00:00 PM	1.99	2.5	0.51	1.11	497.8
4/24/2012	7:00:00 PM	1.99	2.5	0.51	1.11	497.8
4/24/2012	8:00:00 PM	1.99	2.5	0.51	1.11	497.8
4/24/2012	9:00:00 PM	1.98	2.5	0.52	1.14	512.6
4/24/2012	10:00:00 PM	1.98	2.5	0.52	1.14	512.6
4/24/2012	11:00:00 PM	1.99	2.5	0.51	1.11	497.8
4/25/2012	12:00:00 AM	1.98	2.5	0.52	1.14	512.6
4/25/2012	1:00:00 AM	1.98	2.5	0.52	1.14	512.6
4/25/2012	2:00:00 AM	1.99	2.5	0.51	1.11	497.8
4/25/2012	3:00:00 AM	1.98	2.5	0.52	1.14	512.6
4/25/2012	4:00:00 AM	1.98	2.5	0.52	1.14	512.6
4/25/2012	5:00:00 AM	1.99	2.5	0.51	1.11	497.8
4/25/2012	6:00:00 AM	1.98	2.5	0.52	1.14	512.6
4/25/2012	7:00:00 AM	1.98	2.5	0.52	1.14	512.6
4/25/2012	8:00:00 AM	1.98	2.5	0.52	1.14	512.6
4/25/2012	9:00:00 AM	1.98	2.5	0.52	1.14	512.6
4/25/2012	10:00:00 AM	1.98	2.5	0.52	1.14	512.6
4/25/2012	11:00:00 AM	1.98	2.5	0.52	1.14	512.6
4/25/2012	12:00:00 PM	1.98	2.5	0.52	1.14	512.6
4/25/2012	1:00:00 PM	1.98	2.5	0.52	1.14	512.6
4/25/2012	2:00:00 PM	1.98	2.5	0.52	1.14	512.6
4/25/2012	3:00:00 PM	1.98	2.5	0.52	1.14	512.6
4/25/2012	4:00:00 PM	1.98	2.5	0.52	1.14	512.6
4/25/2012	5:00:00 PM	1.98	2.5	0.52	1.14	512.6
4/25/2012	6:00:00 PM	1.98	2.5	0.52	1.14	512.6
4/25/2012	7:00:00 PM	1.98	2.5	0.52	1.14	512.6
4/25/2012	8:00:00 PM	1.97	2.5	0.53	1.18	527.6
4/25/2012	9:00:00 PM	1.98	2.5	0.52	1.14	512.6
4/25/2012	10:00:00 PM	1.98	2.5	0.52	1.14	512.6
4/25/2012	11:00:00 PM	1.97	2.5	0.53	1.18	527.6
4/26/2012	12:00:00 AM	1.98	2.5	0.52	1.14	512.6
4/26/2012	1:00:00 AM	1.98	2.5	0.52	1.14	512.6
4/26/2012	2:00:00 AM	1.97	2.5	0.53	1.18	527.6
4/26/2012	3:00:00 AM	1.97	2.5	0.53	1.18	527.6
4/26/2012	4:00:00 AM	1.98	2.5	0.52	1.14	512.6
4/26/2012	5:00:00 AM	1.98	2.5	0.52	1.14	512.6
4/26/2012	6:00:00 AM	1.97	2.5	0.53	1.18	527.6

4/26/2012	7:00:00 AM	1.98	2.5	0.52	1.14	512.6
4/26/2012	8:00:00 AM	1.97	2.5	0.53	1.18	527.6
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4/26/2012	6:00:00 PM	1.97	2.5	0.53	1.18	527.6
4/26/2012	7:00:00 PM	1.95	2.5	0.55	1.24	558.0
4/26/2012	8:00:00 PM	1.94	2.5	0.56	1.28	573.4
4/26/2012	9:00:00 PM	1.93	2.5	0.57	1.31	588.9
4/26/2012	10:00:00 PM	1.92	2.5	0.58	1.35	604.6
4/26/2012	11:00:00 PM	1.92	2.5	0.58	1.35	604.6
4/27/2012	12:00:00 AM	1.92	2.5	0.58	1.35	604.6
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4/27/2012	5:00:00 PM	1.96	2.5	0.54	1.21	542.7
4/27/2012	6:00:00 PM	1.96	2.5	0.54	1.21	542.7
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4/28/2012	1:00:00 AM	1.97	2.5	0.53	1.18	527.6
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4/29/2012	12:00:00 AM	1.99	2.5	0.51	1.11	497.8
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4/30/2012	11:00:00 PM	1.99	2.5	0.51	1.11	497.8

**Appendix K**

**EPA Guidelines on Determining Streamflow from Surface Velocity**



## Water: Monitoring & Assessment

You are here: Water » Our Waters » Rivers & Streams » Monitoring & Assessment » 5.1 Stream Flow

# 5.1 Stream Flow

### **What is stream flow and why is it important?**

Stream flow, or discharge, is the volume of water that moves over a designated point over a fixed period of time. It is often expressed as cubic feet per second ( $\text{ft}^3/\text{sec}$ ).

The flow of a stream is directly related to the amount of water moving off the watershed into the stream channel. It is affected by weather, increasing during rainstorms and decreasing during dry periods. It also changes during different seasons of the year, decreasing during the summer months when evaporation rates are high and shoreline vegetation is actively growing and removing water from the ground. August and September are usually the months of lowest flow for most streams and rivers in most of the country.

Water withdrawals for irrigation purposes can seriously deplete water flow, as can industrial water withdrawals. Dams used for electric power generation, particularly facilities designed to produce power during periods of peak need, often block the flow of a stream and later release it in a surge.

Flow is a function of water volume and velocity. It is important because of its impact on water quality and on the living organisms and habitats in the stream. Large, swiftly flowing rivers can receive pollution discharges and be little affected, whereas small streams have less capacity to dilute and degrade wastes.

Stream velocity, which increases as the volume of the water in the stream increases, determines the kinds of organisms that can live in the stream (some need fast-flowing areas; others need quiet pools). It also affects the amount of silt and sediment carried by the stream. Sediment introduced to quiet, slow-flowing streams will settle quickly to the stream bottom. Fast moving streams will keep sediment suspended longer in the water column. Lastly, fast-moving streams generally have higher levels of dissolved oxygen than slow streams because they are better aerated.

This section describes one method for estimating flow in a specific area or reach of a stream. It is adapted from techniques used by several volunteer monitoring programs and uses a float (an object such as an orange, ping-pong ball, pine cone, etc.) to measure stream velocity. Calculating flow involves solving an equation that examines the relationship among several variables including stream cross-sectional area, stream length, and water velocity. One way to measure flow is to solve the following equation:

$$\text{Flow} = \text{ALC} / \text{T}$$

Where:

A=Average cross-sectional area of the stream (stream width multiplied by average water depth).

L=Length of the stream reach measured (usually 20 ft.)

C=A coefficient or correction factor (0.8 for rocky-bottom streams or 0.9 for muddy-bottom streams). This allows you to correct for the fact that water at the surface travels faster than near the stream bottom due to resistance from gravel, cobble, etc. Multiplying the surface velocity by a correction coefficient decreases the value and gives a better measure of the stream's overall velocity.

T=Time, in seconds, for the float to travel the length of L

### **How to Measure and Calculate Stream Flow**

#### **Task 1 Prepare before leaving for the sampling site**

Refer to [section 2.3 - Safety Considerations](#) for details on confirming sampling date and time, safety considerations, checking supplies, and checking weather and directions. In addition to the standard sampling equipment and apparel, when measuring and calculating flow, include the following equipment:

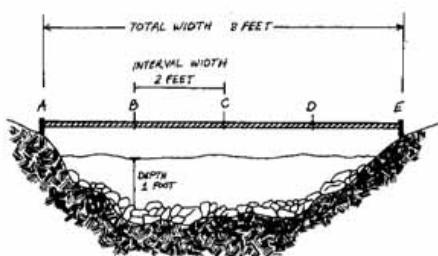
- Ball of heavy-duty string, four stakes, and a hammer to drive the stakes into the ground. The string will be stretched across the width of the stream perpendicular to shore at two locations. The stakes are to anchor the string on each bank to form a transect line.
- Tape measure (at least 20 feet)
- Waterproof yardstick or other implement to measure water depth
- Twist ties (to mark off intervals on the string of the transect line)
- An orange and a fishing net (to scoop the orange out of the stream)
- Stopwatch (or watch with a second hand)
- Calculator (optional)

#### **Task 2 Select a stretch of stream**

The stream stretch chosen for the measurement of discharge should be straight (no bends), at least 6 inches deep, and should not contain an area of slow water such as a pool. Unobstructed riffles or runs are ideal. The length that you select will be equal to  $L$  in solving the flow equation. Twenty feet is a standard length used by many programs. Measure your length and mark the upper and lower end by running a transect line across the stream perpendicular to the shore using the string and stakes (Fig. 5.4). The string should be taut and near the water surface. The upstream transect is Transect #1 and the downstream one is Transect #2.

#### **Task 3 Calculate the average cross-sectional area**

Cross-sectional area (A in the formula) is the product of stream width multiplied by average water depth. To calculate the average cross-sectional area for the study stream reach, volunteers should determine the cross-sectional area for each transect, add the results together, and then divide by 2 to determine the average cross-sectional area for the stream reach.

**To measure cross-sectional area:****Figure 5.5**

2. Determine the average depth along the transect by marking off equal intervals along the string with the twist ties. The intervals can be one-fourth, one-half, and three-fourths of the distance across the stream. Measure the water's depth at each interval point (Fig. 5.5). To calculate average depth for each transect, divide the total of the three depth measurements by 4. (You divide by 4 instead of 3 because you need to account for the 0 depths that occur at the shores.) In the example shown in Figure 5.6, the average depth of Transect #1 is 0.575 feet and the average depth of Transect #2 is 0.625 feet.
3. Determine the width of each transect by measuring the distance from shoreline to shoreline. Simply add together all the interval widths for each transect to determine its width. In the Figure 5.6 example, the width of Transect #1 is 8 feet and the width of Transect #2 is 10 feet.
4. Calculate the cross-sectional area of each transect by multiplying width times average depth. The example given in Figure 5.6 shows that the average cross-sectional area of Transect #1 is 4.60 square feet and the average cross-sectional area of Transect #2 is 6.25 square feet.

5. To determine the average cross-sectional area of the entire stream reach (A in the formula), add together the average cross-sectional area of each transect and then divide by 2. The average cross-sectional area for the stream reach in Figure 5.6 is 5.42 square feet.

**Figure 5.6****A diagram of a 20-foot transect****Task 4 Measure travel time**

Volunteers should time with a stopwatch how long it takes for an orange (or some other object) to float from the upstream to the downstream transect. An orange is a good object to use because it has enough buoyancy to float just below the water surface. It is at this position that maximum velocity typically occurs.

The volunteer who lets the orange go at the upstream transect should position it so it flows into the fastest current. The clock stops when the orange passes fully under the downstream transect line. Once under the transect line, the orange can be scooped out of the water with the fishing net. This "time of travel" measurement should be conducted at least three times and the results averaged--the more trials you do, the more accurate your results will be. The averaged results are equal to T in the formula. It is a good idea to float the orange at different distances from the bank to get various velocity estimates. You should discard any float trials if the object gets hung up in the stream (by cobbles, roots, debris, etc.)

**Task 5 Calculate flow**

Recall that flow can be calculated using the equation:

$$\text{Flow} = \text{ALC} / \text{T}$$

Continuing the example in Fig. 5.6, say the average time of travel for the orange between Transect #1 and #2 is 15 seconds and the stream had a rocky bottom. The calculation of flow would be:

*Where:*

A	=	5.42 ft <sup>2</sup>
L	=	20 ft
C	=	0.8 (coefficient for a rocky-bottom stream)
T	=	15 seconds

$$\begin{aligned} \text{Flow} &= 15 \text{ seconds} (5.42 \text{ ft}^2) (20 \text{ ft}) (0.8) / 15 \text{ sec.} \\ &= 86.72 \text{ ft}^3 / 15 \text{ sec.} \\ &= 5.78 \text{ ft}^3/\text{sec.} \end{aligned}$$

**Task 6 Record flow on the data form**

On the following page is a form volunteers can use to calculate flow of a stream.

**References**

Adopt-A-Stream Foundation. *Field Guide: Watershed Inventory and Stream Monitoring Methods*, by Tom Murdoch and Martha Cheo. 1996. Everett, WA.

Mitchell, M.K., and W. Stapp. *Field Manual for Water Quality Monitoring*. 5<sup>th</sup> Edition. Thompson Shore Printers.

Missouri Stream Teams. *Volunteer Water Quality Monitoring*. Missouri Department of Natural Resources, P.O. Box 176, Jefferson City, MO 65102.

[Data Form for Calculating Flow \(PDF, 82.8 KB\)](#)

You will need Adobe Acrobat Reader to view the Adobe PDF files on this page. See [EPA's PDF page](#) for more information about getting and using the free Acrobat Reader.

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